

NBSIR 73-213

LEAA Police Equipment Survey of 1972 Volume IV: Alarms, Security Equipment, Surveillance Equipment

J. L. Eldreth, E. D. Bunten, P. A. Klaus

Technical Analysis Division
Institute for Applied Technology
National Bureau of Standards
Washington, D. C. 20234

Final Report

July 1971 – October 1973

Prepared for

**National Institute of Law Enforcement and Criminal Justice (NILECJ)
Law Enforcement Assistance Administration (LEAA)
Department of Justice
Washington, D. C. 20530**

REPORTS FROM THE LEAA POLICE EQUIPMENT SURVEY:

The present report is one in a series of reports produced from data gathered by the LEAA Police Equipment Survey of 1972. Listed below are the seven reports of that survey.

National Bureau of Standards Report 73-213. (The Present Report.) LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume IV: Alarm Displays, Security Equipment, and Surveillance Equipment.

National Bureau of Standards Report 73-210. LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume I: The Need for Standards -- Priorities for Police Equipment.

National Bureau of Standards Report 73-211. LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume II: Communications Equipment and Supplies.

National Bureau of Standards Report 73-212. LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume III: Sirens and Emergency Warning Lights.

National Bureau of Standards Report 73-214. LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume V: Handguns and Handgun Ammunition.

National Bureau of Standards Report 72-215. LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume VI: Body Armor and Confiscated Weapons.

National Bureau of Standards Report 73-216. LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume VII: Patrolcars.

NBSIR 73-213

**LEAA POLICE EQUIPMENT SURVEY OF 1972
VOLUME IV.: ALARMS, SECURITY EQUIPMENT,
SURVEILLANCE EQUIPMENT**

J. L. Eldreth, E. D. Bunten, P. A. Klaus

Technical Analysis Division
Institute for Applied Technology
National Bureau of Standards
Washington, D. C. 20234

Final Report

July 1971 - October 1973

Prepared for
National Institute of Law Enforcement and Criminal Justice (NILECJ)
Law Enforcement Assistance Administration (LEAA)
Department of Justice
Washington, D. C. 20530



U. S. DEPARTMENT OF COMMERCE, Frederick B. Dent, Secretary
NATIONAL BUREAU OF STANDARDS, Richard W. Roberts, Director

ACKNOWLEDGEMENTS

We are grateful to the 447 police departments throughout the United States who contributed their time and knowledge to make this report possible. Special thanks go to the police departments whose officers and administrators helped the survey team during the developmental and testing phases of the work. In addition, we thank Marshall A. Isler, Program Manager in the Law Enforcement Standards Laboratory of the National Bureau of Standards, for his help in designing the questionnaire and interpreting the data. The support and assistance of Lester Shubin, NILECJ, project monitor and consultant, is also gratefully acknowledged.

Although there are only three authors for this report, the work could not have been accomplished without the capable and conscientious efforts of the many members of the Technical Analysis Division who provided support for the whole survey effort:

William L. O'Neal for his help in computerizing the sample selection and for helping design and programming an interactive record-keeping system; P. Clare Peiser for helping maintain the computerized record-keeping system; Sandra J. Mumford for supervising the coding/editing of the questionnaires; June R. Cornog for her advice, support and help with initial interviews; Gail B. Hare for conducting pretest interviews; Diane R. Beall for the many typings of the various versions of the questionnaires; Suellen Halpin, Mary L. Friend, Susan E. Bergsman and Dwight F. Doxey, for making follow-up telephone calls; Lorraine S. Freeman for her administrative support; Karen Jackson, a summer employee for her help with questionnaire coding and record-keeping; Cassandra Streeter and Janice Davis, summer employees for their help with record-keeping; and Jo A.E. Copeland for typing the report.

Michael R. Vogt receives special thanks for his help in carrying out the computerized edit and tabulation of the data. We also gratefully acknowledge the help of Robert J. Cunitz in editing and reviewing the report.

TABLE OF CONTENTS

	<u>Page</u>
REPORTS FROM THE LEAA POLICE EQUIPMENT SURVEY	
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vi
EXECUTIVES' SUMMARY	x
 1.0 INTRODUCTION	 1
1.1 Project Background.	1
1.2 Sample Design	2
1.3 Questionnaire Administration.	6
1.4 Development and Design of the Alarms DQ	8
1.5 Characteristics of Subsample Groups	10
 2.0 QUESTION BY QUESTION DISCUSSION.	 14
2.1 Advice to the Reader.	14
2.2 Discussion.	17
2.2.1 Characteristics of Respondents	17
2.2.2 "Direct-to-Police" Alarm Displays.	19
2.2.3 Numbers of Alarms and False Alarms	30
2.2.4 Night Vision Equipment	36
2.2.5 Closed Circuit Television (CCTV) and Video Tape Recorder (VTR).	43
2.2.6 Cameras.	54
2.2.6.1 Problems with Movie Cameras	58
2.2.6.2 Problems with Still Cameras	59
2.2.6.3 Future Purchase of Cameras.	63
2.2.7 Standards for Other Security Devices	65
2.2.8 Other Comments.	67
2.2.8.1 Comments About "Direct-to-Police" Alarm Displays .	67
2.2.8.2 Comments About Night Vision Equipment	68
2.2.8.3 Comments About CCTV System	68
2.2.8.4 Comments About Cameras	69
2.2.8.5 Comments About Other Security Devices	70
 Appendix A: Alarm Displays, Security Equipment, and Surveillance Equipment Questionnaire	
 Appendix B: Data Tables	

LIST OF TABLES

1.0 INTRODUCTION

<u>Table Number</u>		<u>Page</u>
1.2-1	Stratification Categories	3
1.2-2	Police Departments by Region and Type	5
1.2-3	Departments Selected to Receive the Detailed Questionnaire: Alarms, Security and Surveil- lance Systems	7
1.3-1	Departments Returning Acceptable Detailed Questionnaires: Alarms, Security, and Surveillance Systems.	9
1.5-1	Activities Handled by AT LEAST ONE-THIRD of Each Department Type	11
1.5-2	Descriptive Data by Department Type	13
1.5-3	Descriptive Data by LEAA Region	13

2.0 QUESTION BY QUESTION DISCUSSION

<u>Table Number</u>		<u>Page</u>
i	City and Township Departments in Which the Alarms DQ Was Completed by Officer With Specified Rank/Title.	18
ii	Departments Whose Primary Respondent Specified Years of Law Enforcement Experience	19
1	Departments Which Had "Direct-to-Police" Alarm Displays	20
2-1	Departments Which Specified Number of Different Brands of Displays.	21

<u>Table Number</u>		<u>Page</u>
2-2	Departments Reporting at Least One Display by Specified Manufacturer	22
5-1	Variety of Subscribers to Displays	24
5-2	Frequency Distribution of Subscribers to Displays	25
6	Departments Which Limit/Might Have to Limit Subscribers	26
6/1	Departments (a) Which Had "Direct-to-Police" Alarm Displays <u>AND</u> Did/Will Limit Numbers of Subscribers, (b) Which Had Such Displays <u>AND</u> Did Not/Will Not Limit Subscribers, and (c) Which Did Not Have Displays.	27
7	Departments Specifying Reason for Limitation of Subscribers	27
8-1	Departments Citing At Least One Problem With Displays	28
8-2	Departments Specifying Problem With Displays.	29
9/1	Departments Which Will Provide "Direct-to-Police" Tie-ins Within the Next 5 Years	30
3-1	Departments Reporting Numbers of Alarms Received per Month	32
3-2	Median Number of Alarms (of All Kinds) Per Month.	33
3-3	Median Numbers of Alarms for Each Means of Receiving	34
3/4	False Alarms for Each Alarm Receiving System	35
10	Departments With Any Night Vision Equipment	36
11	Departments Specifying Type of Night Vision Equipment	37

<u>Table Number</u>		<u>Page</u>
12	Departments Reporting At Least One Problem With Night Vision Equipment	39
13/11	Departments Reporting "No Problem" With Night Vision Equipment	39
13	Examples of Problems Mentioned for Each Night Vision Device	40
14-1	Departments Which Will Buy Night Vision Equipment in the Next 5 Years	41
14-2	Departments Specifying Night Vision Equipment To Be Bought in the Next 5 Years.	42
14/11	Departments Which Currently Had/Will Buy and Which Currently Did Not Have/Will Buy Specified Item of Night Vision Equipment	44
15/18-1	Departments With CCTV and With VTR	45
15/18-2	Departments With Specified Combination of CCTV and VTR	45
16/15	Departments Using CCTV for Specified Purpose	47
19/18	Departments Using VTR for Specified Purpose	49
17/15 and 20/18-1	Departments Citing at Least One Problem With the CCTV or VTR	50
17/15 and 20/18-2	Departments Specifying Problem With CCTV or VTR	51
21	Department Which Will Buy CCTV or VTR in the Next 5 Years.	53
22-1	Departments With at Least One Camera.	54
22-2	Departments Specifying Kind of Camera	55

<u>Table Number</u>		<u>Page</u>
23	Departments Specifying "No Problem", Giving No Answer, or Citing at Least One Problem With Each Type of Camera.	57
23A	Departments Citing Problems With Movie Camera	58
23 B/C/D/E	Departments Citing Problems With Still Cameras	60
23F	Departments Mentioning Problems With Camera Which Uses Special Film for <u>Rapid</u> Automatic Processing of Pictures.	62
24-1	Departments Which Will Buy a Camera in the Next 5 Years	63
24-2	Departments Specifying Type of Cameras To Be Bought.	64
25-1	Departments Saying at Least One "Other" Security Device Needed Performance Standards	65
25-2	Departments Citing Need for Performance Standards for Specified "Other" Security Devices.	66

EXECUTIVES' SUMMARY:

I. SUMMARY OF BACKGROUND AND METHODOLOGY

A. Background (pp.1-2)

- Law Enforcement Standards Laboratory (LESL) was established in 1970 and became part of the NILECJ Equipment Systems Improvement Program (ESIP).
- NILECJ asked the Behavioral Sciences Group of the National Bureau of Standards to develop and carry out a procedure to get information from the users of law enforcement equipment.
- User information would aid NILECJ in setting priorities for LESL programs and would provide some detailed information so that research to develop standards could begin.
- In addition, gathering information from the users would help to make police agencies aware of LESL and ESIP.
- A nationwide mail sample survey was selected as the best procedure to collect user information.
- An Equipment Priorities Questionnaire (EPQ) and six Detailed Questionnaires (DQs) were developed and administered. A separate report was prepared for each of these seven questionnaires.

B. Design of Questionnaires (pp.8-10)

- Questionnaires were developed in conjunction with NILECJ, LESL, and cooperating police departments. Questionnaires were pre-tested at various times with approximately 45 police departments.
- The EPQ was designed to provide information about priority needs for standards for various types of equipment.
- In addition, the EPQ asked for data about numbers of full- and part-time officers, activities performed in the department, budget, size of jurisdiction, etc.
- The six DQs (Alarms, Security and Surveillance Equipment; Communications Equipment and Supplies; Handguns and Handgun Ammunition; Sirens and Lights; Body Armor and Confiscated Weapons; and Patrolcars) were each developed separately.

- The DQs asked about kinds and quantities of equipment in use, problems with existing equipment, suggestions for improving equipment, needs for standards related to the equipment, etc. Although entitled Detailed Questionnaires, these questionnaires were designed to give an overview of the use of specific items of equipment.

C. Sample (pp.2-6)

- The population sampled was made up of all police departments listed in a computerized file compiled and maintained by the LEAA Statistical Service.
- Courts, correctional institutions, forensic labs, special police agencies, etc., were excluded.
- The sample was stratified by LEAA Geographic Region (10 Regions) and by Department Type (7 Department Types: State Police; County Police and Sheriffs; City Departments with 1-9 Officers; City Departments with 10-49 Officers; City Departments with 50 or more officers, excluding the Fifty Largest Cities; the Fifty Largest U.S. Cities by population; and Township Departments).
- Overall, approximately 10% of the 12,836 departments in the population were selected as respondents (see Table 1.2-2).
- The Equipment Priorities Questionnaire was sent to every sample department (1386). Each Detailed Questionnaire was sent to all States, to all of the Fifty Largest Cities, and to a randomly selected subsample of the main sample (about 530 departments received each DQ).
- Thus, States and the Fifty Largest Cities were asked to fill in all seven questionnaires. Each of the remaining 1286 departments were asked to fill in the EPQ and two of the DQs.
- The sample for the Alarms DQ consisted of 529 departments (see Table 1.2-3).

D. Questionnaire Administration (pp.6-8)

- Stringent control of administration was required.
- Introductory letters were sent to heads of departments asking cooperation.
- On June 1, 1972 questionnaire packages were mailed.
- In July 1972, follow-up by self-return postcard was begun.

- In August 1972, follow-up by telephone was begun. Departments which had not returned questionnaires were called. Also, calls were made to clear up ambiguities in the returned questionnaires. About 1300 calls were made. About 70% of the sample departments were called at least once.
- Each questionnaire was edited and coded by a specialized team to ensure consistency; the questionnaires were then keypunched and tabulated.
- Completed questionnaires were accepted for tabulation through January 7, 1973.

E. Rates of Return (pp.8-9)

- 83% of the 1386 departments returned usable EPQs.
- 84% of the 529 departments returned usable Alarms DQs.
- 81 - 85% of the other DQ subsamples returned usable questionnaires.
- Highest rates of return (90% or more) were from States, the Fifty Largest Cities, and Cities (50+).
- Lowest rates of return were from Counties and Townships (less than 75%)

F. Characteristics of Responding Departments (pp.10-13)

- The activities most commonly carried out by the respondents (to the EPQ) were Serving Traffic and Criminal Warrants (88%), Traffic Safety and Traffic Control (87%), and Intra-departmental Communications (87%).
- All of the responding Fifty Largest Cities said they provided In-House Training and Criminal Investigations. This compared to 68% and 86%, respectively, of all responding departments.
- Only 13% of all respondents had Crime Laboratories. 73% of the Fifty Largest Cities and 55% of the States had Crime Laboratories.
- About three-fifths of the departments in all Department Types were providing Emergency Aid and Rescue, ranging from 60% of the Cities with 50 or More Officers to 67% of the Counties.
- Overall, the reported Equipment Budgets represented somewhat over 10% of the Total Budgets reported.

- Among Department Types there was a wide range of total equipment expenditures, from a mean of about \$10,000 for Cities with 1-9 Officers to a mean of almost \$2.6 million for the Fifty Largest Cities.
- One of the Fifty Largest Cities reported an Equipment Budget of \$40 million.
- Overall, the Fifty Largest Cities reported a mean of 2491 Full-Time Sworn Officers. However, one of the Fifty Largest Cities had 27% of all the Full-Time Officers reported by that Department Type and another had about 12%.

G. Presentation of Data (14-17)

- Data in this report are presented in two forms: Text tables and full tables (Appendix B). Text tables do not always present a complete break out of the data.
- All tables (text and full) present the data in unweighted form, (i.e., numbers and percentages of the responding departments from the sample for this questionnaire, not figures that have been weighted to expand the data to the total population of police departments in the U.S.)
- The sample selected for this questionnaire was not proportional to the total population of police departments. If decisions are to be made which require estimates of population figures, the appropriate extrapolation must be performed. (See Appendix B.)

II. SUMMARY OF RESULTS

A. Characteristics of Respondents (pp. 17-19)

- In about half or more of the City (1-9), Township, and City (10-49) departments the Alarms DQ was filled in by the Chief of the department.
- In responding States and larger City Department Types, the respondent tended to be a Captain or Lieutenant.
- In County departments the respondent was most often a Sheriff or Deputy Sheriff.

- More than half of the 447 respondents had had more than 15 years of law enforcement experience when they answered this DQ. Only 3% had fewer than 3 years of law enforcement experience.

B. "Direct-to-Police" Alarm Displays (pp. 19-30)

- More than half of the responding departments in every Department Type except States had "direct-to-police" alarm displays.
- Over 90% of the responding Cities (10-49) and Cities (50+) had such alarm displays. Only 23% of responding States did.
- The majority of responding departments with "direct-to-police" alarm displays had more than one brand of display.
- The vast majority of departments with such displays reported at least one Financial Institution among their "direct-to-police" alarm subscribers.
- In responding Townships, Cities (1-9), City (10-49), and Cities (50+) with "direct-to-police" alarm service; the largest proportions of subscribers were Small Businesses.
- Responding Counties and Fifty Largest Cities reported that Financial Institutions made up the majority of their "direct-to-police" alarm subscribers.
- More than half of the responding Fifty Largest City, State, and City (50+) departments with such displays said they were now limiting subscribers to "direct-to-police" alarm displays or would have to limit subscribers in the future.
- The most frequent reasons given for limiting subscribers were Limited Space for Panels, Too Many False Alarms, and Limited Personnel for Monitoring Panels.
- In 5 of the 7 Department Types more than half of the departments with "direct-to-police" alarm displays reported at least one problem with those displays -- County = 48% and City (1-9) = 35%.
- Less than one-fourth of the responding departments that did not have "direct-to-police" alarm displays said that they would provide that service within the next 5 years.

C. Numbers of Alarms and False Alarms (pp. 30-35)

- Although no definition of "false alarm" was supplied in the questionnaire, it was assumed that most departments considered any alarm for which there was no evidence of unauthorized entry or property damage to be a false alarm.
- Only those departments with "direct-to-police" alarm displays were asked to supply data about numbers of alarms and false alarms.
- Responding Fifty Largest City departments reported a median of 500 alarms per department per month when all alarm receiving systems were combined. The median for responding States was about one-fifth as large.
- For the other five Department Types, the median numbers of alarms received per department per month were City (50+) = 64, Township = 26, City (10-49) = 20, City (1-9) = 5, County = 5.
- Except for Fifty Largest City, State, and City (1-9) departments, there was a tendency for the greatest numbers of alarms to be received via "Direct-to-Police" Alarm Displays followed by Central Stations and Automatic Dialers.
- Responding Fifty Largest City departments received the greatest number of alarms via Central Stations followed by Automatic Dialers and "Direct-to-Police" Alarm Displays.
- Responding States, Cities (10-49), Cities (50+), Cities (1-9), and Fifty Largest reported that, on the average, about 9 alarms in 10 were false alarms (ones for which there was no evidence of unauthorized entry or property damage).
- Responding Counties and Townships reported that about 3 alarms in 4 were false alarms.

D. Night Vision Equipment (pp. 36-43)

- Night vision equipment was mainly used by only three of the Department Types: Fifty Largest Cities (49%), States (30%), and Cities 50+ (14%).
- Of the responding departments with any night vision equipment (n=52), the most common device was the Hand-Held Night Scope Not Suitable for Rifle (60%).

- The majority of users of night vision equipment reported no problems with this equipment.
- Majorities of the responding departments in the three largest Department Types said that they would be likely to buy at least one item of night vision equipment in the next 5 years, and more than one-fourth of the responding Counties and Cities (10-49) made this statement.
- About half of the responding Fifty Largest Cities and about one-third of the States and Cities (50+) said they would buy Low-Light Level TV in the next 5 years.
- 42% of the responding States said they would buy Night Vision Scopes Suitable for Rifle or Hand-Held.
- Most of the departments which said they would be buying a specified item of night vision equipment did not already have that particular item of night vision equipment.

E. Closed Circuit TV (CCTV) and Video Tape Recorder (VTR) (pp. 43-53)

- There were large differences among Departments Types in the use of CCTV and VTR.

Department Type:	% Responding Departments <u>Having VTR</u>	% Responding Departments <u>Having CCTV</u>
50 Largest	89	71
State	68	45
City (50+)	53	37
City (10-49)	22	20
County	17	12
City (1-9)	8	6
Township	4	4

- In general, the responding departments which had CCTV also had VTR. However, only a very few departments reported having CCTV but no VTR.
- The most commonly reported use for both CCTV and VTR was Training.
- About one-third of the responding departments with CCTV systems used it in each of three other ways: Checking on Prisoners, Watching Civil Disturbances, and "Other" Surveillance Within Police Buildings.

- About half of the responding departments with VTR were using that system for Collecting Evidence Other Than Traffic Violations and/or With Closed Circuit TV.
- The majority of departments with CCTV or VTR reported no problems with the system.
- More than half of the responding States, Fifty Largest Cities, and Cities (50+) said they would buy either CCTV or VTR or both within the next 5 years. About one-third of the Cities (10-49) and one-fourth of the Counties made that statement.

F. Cameras (pp. 54-64)

- In every Department Type except Townships and Cities (1-9), more than 90% of the responding departments had at least one camera.
- The most commonly reported camera in six of the seven Department Types was a Camera Which Uses Special Film for Rapid Automatic Processing of Pictures.
- More than 90% of the two largest City Department Types said they had 4" x 5" Format Cameras.
- Higher percentages of Fifty Largest City departments reported having each type of camera than any other Department Type.
- The majority of departments in each Department Type reported No Problems for each type of camera.

1.0 INTRODUCTION

1.1 Project Background

During the past several years, law enforcement agencies in the United States have become more aware of the importance of equipment in the performance of their duties. Much of their equipment was originally designed for other uses and had to be modified for police use. Other items had to be used as given. No standards existed against which equipment performance could be measured nor were any standard test methods or procedures available. It has been difficult for agencies to compare the performance of equipment items. Recognizing this problem, in 1970, the Law Enforcement Assistance Administration (LEAA) of the Department of Justice began a concentrated program toward the improvement of law enforcement equipment.

As the first step in its Equipment Systems Improvement Program (ESIP), LEAA, in cooperation with the Department of Commerce, established a Law Enforcement Standards Laboratory (LESL) at the National Bureau of Standards (NBS). The broad goal of LESL is to recommend performance standards which can be promulgated by LEAA as voluntary guidelines for the selection of equipment by law enforcement agencies. Additionally, LESL is developing standard test methods and procedures, so that the relative performance of similar items may be evaluated by departments themselves.

In order to provide equipment user information for the ESIP program, in 1971 the National Institute of Law Enforcement and Criminal Justice (NILECJ) of LEAA asked the Behavioral Sciences Group of the Technical

Analysis Division at NBS to gather information from the users of law enforcement equipment about their specialized equipment needs and problems. Although face-to-face interviews with a large sample of representatives from law enforcement agencies would have been desirable, time and manpower constraints led to the development of a nationwide, mail sample survey having two general objectives: (1) To assist NILECJ in the establishment of priorities for LESL's standards development activities; and (2) to obtain detailed information about certain broad equipment categories so that research to develop standards in these areas could begin.

This report fulfills part of the second general objective and the associated survey questionnaire (see Appendix A) will be referred to as the Alarms, Security, and Surveillance Equipment Detailed Questionnaire (DQ). The remainder of the second objective is accomplished in the reports of the other five DQs: Patrolcars; Communications Equipment and Supplies; Handguns and Handgun Ammunition; Sirens and Emergency Warning Lights; and Body Armor and Confiscated Weapons. The first general objective (above) is accomplished in the report on the Equipment Priorities Questionnaire (EPQ)*. A complete listing of these seven reports may be found on the inside front cover of this report.

1.2 Sample Design

Although the objective of ESIP is to serve all types of law enforcement agencies, this particular study was purposefully limited to police departments as the largest single group of law enforcement

* LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume I: The Need for Standards -- Priorities for Police Equipment.

agencies with identifiable equipment needs. No attempt was made to survey correctional institutions, courts, forensic laboratories, or special police agencies such as park police, harbor patrols or university police. The computerized directory of approximately 14,000 police agencies, compiled and maintained by LEAA's Statistics Division, provided the population from which the sample was drawn. Care was taken to exclude the double listings that existed for some agencies. (Details of the selection process are given in Appendix B of the report of the Equipment Priorities Questionnaire.)

The final list of 12,842 departments was cross-stratified by LEAA geographic region and department type by the mutual agreement of NBS and NILECJ. The assignment of states to regions and the seven department types chosen for study are shown in Table 1.2-1.

Table 1.2-1. Stratification Categories

DEPARTMENT TYPES:	LEAA GEOGRAPHIC REGIONS:
State Police	1 = Conn., Maine, Mass., N.H., R.I., Ver.
County Police & Sheriffs	2 = N.J., N.Y.
City with 1-9 Officers	3 = Del., Md., Penn., Va., W. Va., D.C.
City with 10-49 Officers	4 = Ala., Fla., Ga., Ky., Miss., N.C., S.C., Tenn.
City with 50 or more Officers*	5 = Ill., Ind., Mich., Ohio, Wis., Minn.
The 50 largest U.S. Cities**	6 = Ark., La., N.M., Okla., Tex.
Township Departments	7 = Iowa, Kan., Mo., Neb.
	8 = Colo., Mont., N.D., S.D., Utah, Wyo.
	9 = Ariz., Calif., Nev., Hawaii
	10 = Alas., Idaho, Ore., Wash.

*Excluding the 50 largest U.S. Cities

**By population, U.S. 1970 census

The breakdown of the population of police departments by cross-strata is exhibited in Table 1.2-2. As can be seen from the Table, there were no Townships in Regions 4, 6, 7, 8, 9 and 10. Almost 63% of the departments were city police, 43% having 1-9 full-time officers. County Departments comprised about 24% of the population. By Region, the smallest (Region 10) contained only 3.4% of the police departments, while Region 5, the largest, had 22.5%. The variation in the number of departments in a cell (Region/Department Type combination) was even greater than that across the strata, i.e., the number of departments in each cell ranged from 0 to 1470.

The considerations discussed in the previous paragraph led to the sampling plan discussed briefly below. All of the State Departments and the Fifty Largest City Departments were included in the sample and were asked to complete all six DQs, i.e. they were sent the entire package of seven questionnaires. For the remaining cells the variation in cell size presented a problem: If the same fraction of the entire population was to be selected from the members of each cell, a constant sampling fraction large enough to allow a sufficient number of sample units (police departments) in small cells would yield an unmanageably large total sample; on the other hand, a constant sampling fraction small enough to make the total sample manageable would yield too few sample units in small cells. To solve this problem, a fixed sample of 30 police departments/cell was chosen, wherever possible, resulting in a different sampling fraction for each cell. A fixed sample size of thirty departments/cell was chosen to facilitate the equitable distribution of the six DQs. This plan resulted in sending the Alarms DQ to 529 departments.

Table 1.2-2 Number of Police Departments by Region and Type

LEAA REGION

DEPARTMENT TYPE	1	2	3	4	5	6	7	8	9	10	TOTAL
State	6	2	5	8	6	5	4	6	4	4	50*
County	66	84	257	764	536	506	413	288	103	120	3137
City (1-9 Officers)	27	348	713	979	1470	703	611	283	135	217	5486
City (10-49 Officers)	40	237	166	344	508	230	142	71	168	79	1985
City (50 or More Officers)	60	64	36	83	119	46	23	19	87	17	554
50 Largest Cities	1	4	5	8	10	8	3	1	8	2	50
Township	629	349	362	-	234	-	-	-	-	-	1574
TOTAL	829	1088	1544	2186	2883	1498	1196	668	505	439	12,836

* Questionnaires were actually sent to 56 State Police departments since there were 6 State Departments which listed two police agencies without reference to a common central agency. However, only one set of questionnaires was accepted from each of these 6 states as described in Volume I, Appendix B, page B-2.

The departments were selected randomly within each cell, from the total cell population, each department (other than the States and the Fifty Largest Cities) receiving two DQs. Thus, in cells having 30 sample units, the Alarms DQ was mailed to 10 departments; cells having fewer sample units were allocated proportionally fewer Alarms DQs. Table 1.2-3 presents the total sample for the Alarms DQ by Region and Department Type.

Once the sample was selected, each sample unit was assigned a unique seven-digit identification number coding region, type, and questionnaire assignment.

1.3 Questionnaire Administration

From the beginning of the project, it was evident that stringent control would be required in administering the questionnaires to ensure a high rate of response. Computer-stored daily status records were input via a teletypewriter for each sample department. In general the following procedure was used:

- (a) Each department in the sample was mailed a letter, signed by the director of NILECJ, addressed to the head of the department. This letter introduced the survey and requested cooperation.
- (b) About one week later, the questionnaire packages were mailed.
- (c) Departments not returning the questionnaires within a month were identified by the computer and were sent a self return postcard requesting information as to the status of the questionnaires. Departments not receiving the questionnaire package were sent another; those not returning the postcard were placed on a list for telephone follow-up.

Table 1.2-3. Number of Departments Selected To Receive the Detailed Questionnaire:
Alarms, Security and Surveillance Systems, by Region and Department Type.

DEPARTMENT TYPE:

LEAA GEOGRAPHIC REGION:

%

	1	2	3	4	5	6	7	8	9	10	Total	TOTAL POPULATION
State	6	2										100
County	10	10	10	10	10	10	10	10	10	10	100	3
City 1-9 Officers	9	10	10	10	10	10	10	10	10	10	99	2
City 10-49 Officers	10	10	10	10	10	10	10	10	10	10	100	5
City 50+ Officers	10	10	10	10	10	10	7	7	10	6	90	16
50 Largest Cities	1	4	5	8	10	8	3	1	8	2	50	100
Townships**	10	10	10	-	10	-	-	-	-	-	40	3
Total	56	56	60	56	68	53	44	44	52	42	529*	4
PERCENT TOTAL POPULATION	7	5	4	3	2	4	4	7	11	10	4	

* Questionnaires were actually mailed to 56 State police departments since there were 6 states which listed two police agencies without references to a common central agency. However, only one set of questionnaires was accepted from each of these 6 states.

** Township departments exist only in Regions 1, 2, 3, and 5.

- (d) About a month and a half later, departments with which no contact had been made were called by telephone.
- (e) Returned questionnaires were reviewed for completeness and either coded for keypunching or filed for telephone call-back to supply missing data or to resolve ambiguities.

Considerable effort was expended to ensure a high rate of response, and this effort was rewarded with an 84% response for the Alarms DQ, and between 81% and 85% for each of the other questionnaires. In the course of the survey more than 70% of the sample departments were contacted at least once by telephone. More than 1300 phone calls were made by the survey team.

The distribution of respondents (departments which returned usable Alarms DQs) is exhibited in Table 1.3-1. The highest percentages of response were from the largest Cities and States, (over 90%), while Townships had the poorest response rate (62%).

1.4 Development and Design of the Alarms DQ

The survey plan and questionnaire design (of all seven questionnaires) evolved over a 12-month period. During this time, the survey team consulted at length with NILECJ equipment experts, LESL program managers, and equipment manufacturers. In addition, the officers and administrators of about 45 police departments served as consultants and/or as respondents for pretests of various versions of the questionnaires.

The Alarms DQ, in its final form, is reproduced in Appendix A. This DQ asked respondents to provide data about their "direct-to-police" alarm systems, night vision equipment, closed circuit television, cameras, and other security devices. Departments were asked about the

Table 1.3-1. Number of Departments Returning Acceptable Detailed Questionnaires:
Alarms, Security, and Surveillance Systems.

DEPARTMENT TYPE:	LEAA GEOGRAPHIC REGION										% TOTAL SAMPLE
	1	2	3	4	5	6	7	8	9	10	Total
State*	6	2	5	8	6	5	3	6	3	3	47
County	5	7	7	5	10	7	9	9	9	9	77
City 1-9 Officers	9	9	8	9	9	6	9	7	8	9	83
City 10-49 Officers	8	9	7	9	10	8	9	10	9	10	89
City 50+ Officers	10	6	10	10	10	10	5	6	8	6	81
50 Largest Cities	1	3	4	7	8	8	3	1	8	2	45
Townships**	6	6	6	-	7	-	-	-	-	-	25
Total	45	42	47	48	60	44	38	39	45	39	447
PERCENT TOTAL SAMPLE	80	75	78	86	88	83	86	89	86	93	84

* Questionnaires were actually mailed to 56 State police departments since there were 6 states which listed two police agencies without references to a common central agency. However, only one set of questionnaires was accepted from each of these 6 states.

** Township departments exist only in Regions 1, 2, 3, and 5.

use of this equipment in their departments and about problems, if any, with such equipment. The questionnaire was limited to general topics because: (1) It was not possible, considering the scope of the present survey, to explore in a detailed manner all of the complex components, accessories and systems normally found in alarm, surveillance, and security systems, and (2) it was felt that the general data gathered in the present effort would provide important direction for research in the development of standards, the main objective of the survey.

1.5 Characteristics of Subsample Groups

The EPQ of the LEAA Police Equipment Survey* requested data from each department about population served, physical size of jurisdiction served, type of jurisdiction, number of full- and part-time officers, approximate total, equipment, and personnel budgets during 1971, and activities handled by the department.

Table 1.5-1 presents a partial tabulation, by department type, of the responses to a check list of 30 typical police activities by the respondents to the EPQ. (The EPQ respondents included, but were not limited to, the respondents to the Alarms DQ. See Section 1.2.) The activities most frequently checked by all departments were: (1) Serve Traffic and Criminal Warrants (88%), (2) Traffic Safety and Traffic Control (87%), and (3) Communications for Own Department (87%). The activity with the most consistent level across all Department Types was that of Emergency Aid and Rescue, Ranging from 60% (Cities with 50+ Officers) to 67% (Counties).

* LEAA POLICE EQUIPMENT SURVEY OF 1972, Volume I, Op. cit.

Table 1.5-1. Activities Handled by AT LEAST ONE-THIRD of That Department Type by Department Type, and Percent of Total Departments Having Each Activity

DESCRIPTION OF ACTIVITY:

DESCRIPTION OF ACTIVITY:	State County		City 1-9		City 10-49		City 50+		Largest Township		Total	
	%	%	%	%	%	%	%	%	%	%	%	%
Serve Traffic and Criminal Warrants	70	89	84	89	94	87	93				88	
Traffic Safety and Traffic Control	92	56	94	96	96	98	94				87	
Communications for Own Department	94	86	76	95	94	96	70				87	
Criminal Investigation	66	86	71	95	97	100	79				86	
Police Training for Own Department	98	55	48	77	87	100	42				68	
Custody/Detention-Less than 1 Day	-	79	51	73	72	80	43				65	
Breath-Alcohol Test	89	46	47	72	83	91	49				64	
Emergency Aid and Rescue	62	67	62	63	60	67	62				63	
Public Building Protection	-	40	63	60	58	44	68				54	
Service Function	-	-	48	55	60	60	42				48	
Animal Control (Dog Catcher)	-	-	58	63	42	-	37				44	
Highway Patrol	96	38	48	36	-	-	88				43	
Maintenance of Police Buildings	51	36	34	41	48	47					40	
Custody/Detention-1 Week or Less	-	73		36	46	49					38	
Communications for Other Agency	66	56		40	-	-					36	
Serve Civil Process	-	88			-	-					32	
Police Training for Other Agency	77	-			42	84					24	
Custody/Detention-Up to 1 Year	-	78			-	-					22	
Underwater Recovery	34	42			-	42					19	
Bomb Disposal	45				-	82					17	
Polygraph	62				36	90					17	
Vehicle Inspection	55					-					17	
Crime Laboratory	55					73					13	
Narcotics Laboratory Analysis	43					62					11	
Harbor Patrol	-					-					7	
Lab Analysis for Blood Alcohol	34					53					7	
Other	-										6	
Coroner	-										5	
Tests for Drivers License	34										3	
Custody/Detention-More than 1 Year											3	

Higher percentages of State and Fifty Largest City departments than of other Department Types were handling certain of the 30 activities. For example, all of the Fifty Largest City departments responding and 98% of the responding State departments said that their departments provided Police Training for Own Department. These compare to 68% for all responding departments. All of the responding Fifty Largest Cities said that they handled Criminal Investigation in their own departments. This compares to 86% of all responding departments. Although only 13% of the departments overall had Crime Laboratories, 73% of the Fifty Largest Cities and 55% of the States had them.

Counties appeared to be the only Department Type with significant responsibilities for custody and detention for more than 1 week. Seventy-eight percent of these departments had Custody/Detention--Up to 1 Year, as compared with 22% of the total sample.

Tables 1.5-2 and 1.5-3 present summaries of descriptive data by Department Type and LEAA Region, respectively. As can be seen from the column for Annual Equipment Budget (Table 1.5-2), there was a wide range of expenditures among different Department Types: From a mean of about 10 thousand dollars for responding Cities (1-9) to almost 2.5 million dollars for the Fifty Largest Cities. Overall, equipment budgets represented somewhat over 10% of the Annual Total Budgets.

The mean Number of Part-time Officers was based on those respondents having part-time officers in their departments. Of the 45 responding departments from the Fifty Largest Cities, only six had part-time officers, including one city which had nearly 6000. Thus, the mean value of 1115 for this department type is somewhat misleading. It should be noted that the category

Table 1.5-2. Descriptive Data by Department Type (Means)

Department Type	Area (Sq. Miles)	Population	Number of		Annual Total Budget	Annual Equipment Budget	Annual Personnel Budget
			Full-Time Officers	Part-Time Officers			
50 Largest	187	851342	2491	1115	\$43,268,865	\$2,669,920	\$34,712,818
County	62580	3936410	689	18	\$16,377,358	\$2,304,339	\$12,020,572
City (50+)	1518	130254	60	25	\$1,089,919	\$58,539	\$859,984
City (10-49)	31	83344	132	26	\$1,733,340	\$173,099	\$1,407,177
Township	12	15849	22	9	\$257,927	\$24,362	\$205,187
City (1-9)	28	13228	14	8	\$175,654	\$20,854	\$141,675
	9	5038	8	5	\$82,381	\$9,764	\$60,061

Table 1.5-3. Descriptive Data by LEAA Region (Means)

LEAA Region	Area (Sq. Miles)	Population	Number of		Annual Total Budget	Annual Equipment Budget	Annual Personnel Budget
			Full-Time Officers	Part-Time Officers			
1	750	158112	96	18	\$1,360,155	\$135,130	\$979,911
2	648	240781	365	97	\$7,148,315	\$148,172	\$5,265,546
3	1096	245733	216	7	\$3,412,567	\$435,153	\$2,879,293
4	3691	340996	151	11	\$2,318,382	\$248,600	\$1,767,292
5	2652	448174	283	8	\$4,916,607	\$431,478	\$3,879,374
6	5738	271386	160	17	\$2,193,823	\$160,363	\$1,709,910
7	2379	112094	84	9	\$1,220,385	\$121,001	\$983,696
8	6346	83023	54	9	\$728,549	\$77,081	\$563,463
9	4218	372094	281	46	\$5,743,553	\$728,801	\$4,528,692
10	3580	104877	69	9	\$1,253,894	\$82,198	\$1,011,604

Part-time Officers included officers described as auxiliary, volunteer, reserve, school-crossing guard, dispatcher, summer, special agent, traffic supervisor, posse, and cadet. All of these classifications were counted in the Part-time Officer category since it has different meanings for different departments.

Variations in these descriptive averages by LEAA region (Table 1.5-3) were considerably smaller than variations by department type. Regions 1 and 8 had smaller budgets than the others, primarily because each had only one of the Fifty Largest Cities.

2.0 QUESTION BY QUESTION DISCUSSION

2.1 Advice to the Reader

In reading Section 2, certain points should be kept in mind:

- (a) THIS REPORT IS NOT AN EVALUATION OF ANY OF THE EQUIPMENT DESCRIBED OR DISCUSSED WITHIN IT. IT IS A PRESENTATION OF INFORMATION AND OPINIONS OF A STRATIFIED RANDOM SAMPLE OF POLICE DEPARTMENTS GIVEN IN RESPONSE TO A SPECIFIC SET OF QUESTIONS. IT DOES NOT, IN ANY WAY, REFLECT OBJECTIVE TESTING OF ANY EQUIPMENT BY THE NATIONAL BUREAU OF STANDARDS.
- (b) The report reflects only what police departments were willing and able to say in response to a specific set of questions. In most cases, no attempt was made to verify the accuracy of the information given or the level of sophistication of the respondent.

- (c) Each discussion begins with the presentation of the question that appeared in the questionnaire, and in most cases the choices supplied, if any, set off in a box. However, the reader is cautioned to become familiar with the questionnaire sent to sample departments (See Appendix A) and to evaluate the data in terms of the exact questions asked.
- (d) The text tables that appear in Section 2 are almost never the complete tables that were tabulated for that question. Data categories for text tables may have been collapsed from the full table, or certain categories of interest may have been singled out for fuller discussion. Appendix B contains the complete tables from which the text tables were extracted. Text tables have been numbered after the question number (e.g., the text tables for question 6A. would be numbered 6A-1, 6A-2, etc.) The tables in Appendix B are also numbered after the question number, in the same manner. In some cases, tables that appear in Appendix B will not have been discussed at all in the text.
- (e) Data in the text of this report are usually presented by nearest whole percent of the group under consideration. In Appendix B, the data are usually presented by number of respondents and percent. Because of statistical limitations imposed by the sample sizes used in this study, the reader is cautioned to be wary of assigning importance to percentage differences of less than 5% when percentages are based on the total respondents, and to percentage differences of less than 10% when percentages are based on one of the

subsample groups, (e.g., a particular Department Type or Region). No statistical tests of significance are reported.

- (f) Data were always tabulated by each of the choices supplied, if any, in the questionnaire. Any "other" choices written in by the respondents were also tabulated and/or recorded verbatim. In most cases, the numbers of respondents giving a specific "other" response do not reflect the numbers of respondents which would have marked that choice if it had been one of those provided. Therefore, in most cases, this report lists or gives examples of "other" responses, but does not present numbers or percentages of departments giving that response. For those questions for which choices were not provided in the questionnaire, coding categories were developed after approximately one-fourth of the questionnaires had been returned.

- (g) The subsample groups (Department Types and Regions) are capitalized when they are discussed in the text. In addition, the four Department Types which are composed of city departments are at times discussed as a group. In those cases, the word "city" is also capitalized. The following convention has been adopted in the report to designate the four City Department Types:

City with 1-9 Officers = City (1-9)

City with 10-49 Officers = City (10-49)

City with 50 or More Officers = City (50+)

The Fifty Largest Cities = Fifty Largest or 50 Largest

(In addition, answer categories, when quoted in text discussions, are capitalized.)

When the subsample groups are discussed (e.g., "Counties said..." or "Cities (1-9) said...") the reference is to the responding departments from one of the sample strata. It is particularly important to note that when the text or tables refer to "All Departments" or "All Responding Departments," the reference is to all responding departments from the sample described in Section 1.2. This sample was not proportional to the total population of police departments, and although it is possible to do so, the data in this report have not been weighted to allow direct extrapolation to the total population. (See Appendix B, page B-1.)

2.2 Discussion

2.2.1 Characteristics of Respondents

TITLE OF RESPONDENT

All of the questionnaires in the LEAA Police Equipment Survey were mailed to the chief (or highest official) of the department with a request that the questionnaires be directed to the person or persons within the department who were best qualified to answer the questions.

In general, the questionnaire on Alarm Displays, Security Equipment, and Surveillance Equipment was filled in by officers with high rank. In 73% of the responding City (1-9) departments the questionnaire was completed by the Chief of the department; in Township departments, 60% were filled

in by the Chief; and in City (10-49) departments 47% of these questionnaires were filled in by the Chief. As might be expected, as the size of the City department increased, the percentages of chiefs completing this questionnaire decreased.

Table i. Percentages of City and Township Departments in Which the Alarms DQ was Filled in by Officer With Specified Rank/Title.

TITLE/RANK:	DEPARTMENT TYPE:				
	<u>% City 1-9</u>	<u>%City 10-49</u>	<u>%City 50+</u>	<u>%50 Largest</u>	<u>%Town- ship</u>
Chief	73	47	28	2	60
Captain	2	15	26	18	12
Lieutenant	1	7	17	20	0
Sergeant	5	16	9	20	8

In County and State departments too, relatively high ranking officers filled in the Alarms Questionnaire. In 53% of the responding State departments this questionnaire was completed by either a Captain or a Lieutenant. In 70% of the Counties the form was answered by the Sheriff or Deputy Sheriff.

NUMBER OF YEARS OF LAW ENFORCEMENT EXPERIENCE OF RESPONDENT

In general, the respondents to the DQ on Alarm Displays, Security Equipment, and Surveillance Equipment had been in law enforcement work for several years when they filled in the questionnaire. Fifty-two percent of the 447 responding departments said they had more than 15 years of experience in law enforcement. Eighty-five percent of all respondents had 6 or more years of experience. Only 3% of the 447 respondents said they had fewer than 3 years of such experience. (In the questionnaire, space was provided for the person who filled in the questionnaire and for two persons who may have

helped fill in the questionnaire. Only the information from the primary respondent was included in this tabulation.)

Although a majority of the respondents in every Department Type reported having more than 10 years of experience in law enforcement, State departments and the two groups of largest City departments generally had the highest percentages of respondents with lengthy police service.

Table ii. Cumulative Percentages of Departments in Each Department Type Whose Respondents Had Specified Number of Years of Law Enforcement Experience.

NUMBER OF YEARS OF LAW ENFORCEMENT EXPERIENCE:	DEPARTMENT TYPE:						
	% State	% Co.	% City 1-9	% City 10-49	% City 50+	% 50 Largest	%Town- ship
	CUMULATIVE PERCENTAGES						
More than 10 years	93	54	60	73	83	80	72
More than 20 years	52	19	22	28	37	35	24
More than 25 years	22	10	12	15	17	8	8

2.2.2 "Direct-to-Police" Alarm Displays*

1. Does your department now have ONE OR MORE displays for "direct-to-police" burglar or robbery alarms from banks, savings and loans, or other businesses?

Yes (If "Yes" continue with Questions 2 through 9)
No (If "No" skip to Question 9)

About two-thirds of the 447 responding departments had "direct-to-police" alarm displays for directly receiving burglar or robbery alarms from the community. There were, however, large differences among the seven Department Types. While more than half of the departments in six of the Department Types reported having this type of equipment, only 23% of the State departments reported having "direct-to-police" alarm displays. Medium sized cities

* A variety of terms are used by police departments to describe these units. Besides "displays", some possibilities are annunciators, modules, and "boxes". From the answers on the questionnaire and during the follow-up telephone calls, it appeared that the term "display" was generally interpreted correctly.

had the highest percentages of departments with this capability: 96% of Cities (10-49) and 93% of Cities (50+).

Table 1. Percentages of Departments in Each Department Type Which Had "Direct-to-Police" Alarm Displays.

DEPARTMENT TYPE:	% Depts. Having <u>Displays</u>
City (10-49) [n=89]	96
City (50+) [n=81]	93
50 Largest [n=45]	64
Township [n=25]	64
City (1-9) [n=83]	52
County [n=77]	51
State [n=47]	23

As will be discussed further below, many of the responding departments said they were also able to receive alarms by means other than display units. A few respondents commented that they had display units for the protection of their own facilities. Some departments which did not have "direct-to police" displays supplied data about other alarm systems in answer to Question 1. These data were deleted from Question 1 tabulations and were included in the tabulations for Question 3 and 4.

2. Which Manufacturers made the "direct-to-police" alarm displays that you have in your department?

Manufacturers

Although departments were asked to provide information about manufacturers of the "direct-to-police" alarm displays in their departments, it was determined from follow-up telephone calls that departments sometimes provided names of distributors, installers or service companies instead of

manufacturers. In addition, some respondents added names of businesses associated with alarm receiving equipment other than displays: automatic dialers, devices with microphones to monitor activity after an alert at a local business, and fire alarm devices. Such extraneous references were excluded when known, but it cannot be estimated how many were counted as "manufacturers" when qualifying information was unavailable.

Manufacturer data were tallied in two ways: according to (a) the number of different manufacturers cited by each department and (b) the numbers of departments which had displays by each manufacturer.

Of the 298 departments with displays, 77% had fewer than four different brands of displays in the department. Two-fifths of respondents cited only one manufacturer. Cities (50+), one of the largest users of "direct-to-police" alarm displays, had the highest proportion of departments reporting 4 or 5 different brands of displays within the same department (28%).

Table 2-1. Of the 298 Departments Having "Direct-to-Police" Alarm Displays, Percentages Having Specified Number of Different Brands of Displays Within Department.

NUMBER OF DIFFERENT MANUFACTURERS:	% Depts. Having Displays (n = 298)
1	40
2 or 3	37
4 or 5	15
6 or more	4
unknown	2
no answer	2

Four manufacturers of display units were named by substantially more respondents than other companies. Manufacturers A and C were most often cited by departments. Forty-seven percent of the departments with "direct-to-police" displays had at least one display made by Manufacturer A and 41% had at least one made by Manufacturer C. Manufacturers E and B were each

mentioned by more than one-fourth of departments.

Displays by other manufacturers were less often cited. Display panels made by Manufacturer D were used by 11% of departments and other brands of displays were each used by 3% or fewer of the responding departments with displays.

Table 2-2. Of the 298 Departments Having "Direct-to-Police" Alarm Displays, Percentages* Reporting at Least One Display By Specified Manufacturer

MANUFACTURER:	% Depts. Having "Direct-to-Police" Display* (n = 298)
A	47
C	41
E	29
B	26
D	11
Miscellaneous**	44

* Percentages add to more than 100% since multiple answers were allowed.

** Each manufacturer in this category was cited by 3% or fewer of the responding departments with displays.

5. About how many DIRECT-TO-POLICE tie-ins does each kind of SUBSCRIBER have on your department's alarm displays?

<u>NUMBER</u>	<u>TYPE OF SUBSCRIBER</u>
_____	Financial Institutions (banks, savings and loans, etc.)
_____	Jewelry Stores
_____	Small Businesses (OTHER than jewelry stores)
_____	Large Businesses (OTHER than jewelry stores)
_____	Schools
_____	Residences
_____	Other (specify)

Departments were asked to specify the subscribers to their "direct-to-police" alarm displays. In a few cases departments specified that they had included numbers of residences subscribing to automatic dialers. These

data were deleted, since this question specifically requested data about "direct-to-police" displays. It is possible that some departments may have included data for other types of receiving systems in their tallies without indicating it on the questionnaire. It should also be noted that the numbers of subscribers may sometimes be based on estimates rather than actual records.

Of the 298 departments with "direct-to-police" alarm displays, almost all (91%) had Financial institutions among their subscribers. Within all Department Types, except Townships and State departments, at least 90% of the departments with "direct-to-police" alarm displays had Financial institutions as subscribers. Other kinds of businesses (Small Businesses, Large Businesses and Jewelry Stores) were also common subscribers to direct-to-police alarm displays. Less than one-third (30%) of departments with displays reported having Residences among their subscribers and only 18% reported Schools as subscribers, but Townships were much more likely to have Residences (69%) and Schools (44%) as subscribers.

More than one-third of the responding departments wrote in "Other" types of subscribers not listed in the questionnaire. These included:

- Government offices and buildings
- Clubs, fraternal organizations
- Churches, museums, historical buildings
- Military-associated offices and buildings
- Businesses unclassified by the department according to size (large or small)
- Public utilities, telephone company
- Professional offices and centers
- Hospitals, nursing homes
- Alarm companies
- Police department facilities

Table 5-1. Of the Departments in Each Department Type* Having "Direct-to-Police" Alarm Displays, Percentages** Having at Least One Subscriber of the Specified Kind.

KIND OF SUBSCRIBER:	DEPARTMENT TYPE					
	% City 1-9 (n=43)	% City 10-49 (n=85)	% City 50+ (n=75)	% County (n=39)	% 50 Largest (n=29)	% Township (n=16)
Financial Institutions	93	93	92	92	90	81
Small Businesses***	53	75	83	31	17	94
Large Businesses***	35	61	80	21	28	50
Jewelry Stores	35	58	76	5	10	12
Residences	14	31	44	21	10	69
Schools	14	21	23	3	7	44
Other	16	35	39	18	59	44
No Answer/ Unknown	2	2	7	0	3	0

* Excluding State departments in which only 11 respondents answered.

** Percentages add to more than 100% since multiple answers were allowed.

*** Other than Jewelry Stores

Although the vast majority of the responding departments with "direct-to-police" displays had at least one Financial Institution as a subscriber, Financial Institutions did not always comprise the bulk of subscribers reported by those departments with displays. In Townships and the three smaller City Department Types, the largest proportions of subscribers were Small Businesses. In addition, Cities (1-9), Cities (50+), and Townships reported about the same percentages of Large Business subscribers as Financial Institutions. (See Table 5-2, next page.)

Table 5-2. Of Total Numbers of Subscribers to "Direct-to-Police" Alarm Displays Reported in Each Department Type, Percentages of Specified Type.

KIND OF SUBSCRIBER:	% 50 Largest (n=2284)	% County (n=219)	% State (n=219)	% City 1-9 (n=447)	% City 10-49 (n=1602)	% City 50+ (n=4902)	% Township (n=432)
Financial In.	68	51	47	23	22	21	16
Small Business**	13	14	21	38	41	34	43
Large Business**	8	5	19	21	14	19	12
Residences	*	19	1	4	10	16	18
Jewelry	1	1	5	7	5	5	*
Schools	3	3	5	3	3	3	6
Other	7	6	2	5	5	2	4

* Less than 1%

** Other than Jewelry Stores

Means and medians for each Department Type for each type of subscriber are presented in Appendix B.

6. Does your department now LIMIT, or may have to limit in the future, the NUMBER of subscribers you can accept for "direct-to-police" tie-ins?
Yes
No (IF "NO" SKIP TO QUESTION 8)
7. (IF "YES" TO QUESTION 6) we must limit the number of subscribers for "direct-to-police" tie-ins for the following reason(s):
(MARK X BY EACH ITEM THAT APPLIES)
- Limited Space for Panels
 - Limited Personnel for Monitoring Panels
 - Too Many False Alarms
 - Each Alarm System May Need Its Own Kind of Display
 - Inadequate Servicing by Alarm Companies
 - Possible Competition with Central Stations
 - Other (Specify)

The seven Department Types fell into two groups in their answers to this question. Of the departments in each Department Type with "direct-to-police" alarm displays, much higher percentages of the three Largest Department Types (Fifty Largest Cities, States, and Cities [50+]) said they were limiting or would have to limit the numbers of subscribers to their systems. Less than one-third of the departments with displays in the other

four Department Types said they were limiting or would have to limit tie-ins.

Table 6. Of the Departments in Each Department Type with "Direct-to-Police" Alarm Displays, Percentages Which Said They Were Limiting or Might Have to Limit Subscribers To "Direct-to-Police" Tie-ins?

DEPARTMENT TYPE:	% Depts. Having <u>"Direct-to-Police" Displays</u>
50 Largest [n=29]	79%
State [n=11]	64
City (50+) [n=75]	56

City (10-49) [n=85]	31
City (1-9) [n=43]	21
Township [n=16]	19
County [n=39]	18

It is useful at this point to present data from both Question 1 and Question 6 to show the overall pattern among the seven Department Types in their operation of "direct-to-police" alarm systems. Although a high percentage of the responding State departments with displays said that they were or would have to limit numbers of subscribers (Table 6), that percentage was based on just 11 State departments with displays. Table 6/1, on the next page, shows that almost three-quarters of the responding States did not have "direct-to-police" alarm displays. In contrast, higher percentages of the responding Fifty Largest City and City (50+) departments did have "direct-to-police" alarm displays, but about half of the responding departments in those two Department Types said they were limiting or would have to limit numbers of subscribers.

Table 6/1. Percentages of Responding Departments in Each Department Type (a) Which Had "Direct-to-Police" Alarm Displays AND Did/Will Limit Numbers of Subscribers, (b) Which Had Such Displays AND Did Not/Will Not Limit Subscribers, and (c) Which Did Not Have Displays.

DEPARTMENT TYPE:	% With Displays <u>AND</u> Did/Will Limit Subscribers	% With Displays <u>AND</u> Did/Not/Will Not Limit Subscribers	% <u>Without</u> Displays
City (50+) [n=81]	52	41	8
50 Largest [n=45]	51	13	33
City (10-49) [n=89]	29	65	4
State [n=47]	15	8	74
Township [n=25]	12	52	36
City (1-9) [n=83]	11	40	47
County [n=77]	9	40	48

Of the 117 responding departments which saw some need for limiting the numbers of subscribers, (26% of all responding departments and 39% of all responding departments with "direct-to-police" alarm displays), the most frequent reason given for limiting tie-ins was Limited Space for Display Panels (81%). Two other reasons were mentioned by about half of those that did/will limit subscribers: Too Many False Alarms (50%) and Limited Personnel for Monitoring Panels (46%).

Table 7. Of the 117 Departments Which Said They Did/Will Limit Subscribers to "Direct-to-Police" Alarm Displays, Percentages* Citing Specified Reason for Limitation.

REASON FOR LIMITING SUBSCRIBERS:	% Depts. Which Did/Will Limit Subscribers (n=117)
Limited space for panels	81
Too many false alarms	50
Limited personnel for monitoring panels	46
Each alarm system may need its own kind of display	29
Inadequate servicing by alarm companies	19
Possible competition with central stations	16

"Other" reasons	17

*Percentages add to more than 100% since multiple answers were allowed.

Some of the "Other" reasons given for limiting subscribers were: department had limited phone lines, certain specifications (such as city ordinances) would have to be met by subscribers, and departments felt repair people disrupted their operations.

8. What problems have you had, if any, with the DISPLAYS THEMSELVES?
(MARK X BY EACH ITEM THAT APPLIES)

We Have No Problems with Our Displays
 Displays Are Too Large
 Too Many Different Types of Alarm Signals (lights, buzzers, bells, etc.)
 No Way to Tell When an Alarm System is On or Off
 Department Cannot Test Alarm System Automatically
 Frequent Component Failures (lights on displays, for example)
 Other (Specify)

Relatively high percentages of the responding departments with displays checked at least one problem associated with these displays. In all but two Department Types more than half of the departments with displays cited at least one problem: County (48%) and City (1-9) [35%].

Table 8-1. Of the Departments in Each Department Type With "Direct-to-Police" Alarm Displays, Percentages Citing At Least One Problem With Those Displays.

DEPARTMENT TYPE:	% Depts. With Displays Citing Problem
City (50+) [n=75]	82%
State [n=11]	73
City (10-49) [n=85]	71
Township [n=16]	63
50 Largest [n=29]	55
County [n=39]	48
City (1-9) [n=43]	35

About half of the 189 departments that cited problems with "direct-to-police" alarm displays themselves marked Too Many Different Types of Alarm Signals (53%) and about half marked Department Cannot Test Alarm System Automatically (49%). More than one-third of the departments citing problems said the displays had Frequent Component Failures (38%).

Table 8-2. Of the 189 Departments Citing Problems with "Direct-to-Police" Alarm Displays, Percentages Citing Specified Problem.

Problem:	%Depts. Citing Problems (n=189)
Too Many Different Alarm Signals	53
Dept. Cannot Test System Automatically	49
Frequent Component Failures	38
Displays Too Large	30
No Way to Tell If On or Off	14
"Other"	29

9. Will your department be likely to provide a service of "direct-to-police" tie-ins within the next 5 years?

Yes
No

Although this question was intended for all responding departments, it appears that some of the respondents that already had "direct-to-police" alarm displays interpreted the question as asking whether they would increase subscribers. In addition, it is possible that some of the respondents who did not have alarm displays in their departments may not have had only alarm displays in mind when they answered this question. Nevertheless, data for responding departments which did not have alarm displays will be presented here.

Less than one-quarter of the responding departments which did not have "direct-to-police" alarm displays at the time of the survey said that they would be providing such tie-ins within 5 years. Very few of the States without alarm displays (9%) said they would be providing that service, but more than a third of the Cities (1-9) that did not have displays said that they would have them within 5 years.

Table 9/1. Of the Departments Which Did Not Have "Direct-to-Police" Alarm Displays, Percentages Which Will Provide Such Tie-ins Within the Next 5 Years.

PROVIDE IN NEXT 5 YEARS?:	DEPARTMENT TYPE*:				
	% <u>State</u> (n=35)	% <u>County</u> (n=37)	% City <u>1-9</u> (n=39)	% 50 <u>Largest</u> (n=15)	% All <u>Depts.</u> (n=145)
Yes	9	16	38	20	23
No	88	73	51	80	70
No Answer/Don't Know	3	11	10	0	7

* Data are not presented for City (10-49), City (50+), and Townships since fewer than 10 of the responding departments in those Department Types did not have "direct-to-police" alarm displays.

2.2.3 Numbers of Alarms and False Alarms

Before discussing reported numbers of alarms and false alarms, it is necessary to define carefully the meaning of the term false alarm because it is often defined differently by police departments and equipment manufacturers. Police departments usually define any alarm for which there is no evidence (upon investigation) of unauthorized entry or property damage as a false alarm. Companies which manufacture, maintain, and/or service alarm systems and researchers in the field usually make more precise distinctions between "actual" alarms (those associated with

unauthorized entry or property damage) and several other categories of alarms, e.g., those caused by telephone line disturbances, electrical storms, equipment malfunctions and human error. Because no definition of the term false alarm was supplied in this questionnaire, it is probable that the data supplied by the respondents (police departments) utilized the former definition, i.e., a false alarm is any alarm for which no evidence of unauthorized entry or property damage is found. It is important to note, however, that from the police department point of view, any alarm requires a response and represents a commitment of departmental resources. It is unrealistic to expect many of the responding departments to have maintained detailed breakdowns of the causes of false alarms: such data has little relevancy to police department operations and is difficult, if not impossible for them to acquire.

3. About how many ALARMS (both real and false) are USUALLY received by your department in a MONTH?
4. For this average number of alarms per MONTH, about how many of them are FALSE ALARMS?

ALARMS THAT COME FROM:

Displays in department
Printing Receiving System (gives printed message to indicate alarm)
Central Stations who pass alarm on to police by phone
Automatic Dialer which gives taped emergency message
Other (Specify)
Total

Only those departments with "direct-to-police" alarm displays ("Yes" to Question 1) were asked to answer these questions. The alarms

received by departments with alarm displays were of particular interest to the Law Enforcement Standards Laboratory. Alarms received via other types of alarm systems were included mainly for comparison with alarms received via alarm displays. A few of the departments which did not have "direct-to-police" alarm displays did answer these questions, and their answers were included in the tabulations. The percentages of departments in each Department Type answering Questions 3 and 4 roughly paralleled the percentages of departments with "direct-to-police" alarm displays: Less than one-fourth of the responding State departments reported alarms received by any means, and more than 95% of the responding Cities (10-49) and Cities (50+) reported receiving some alarms.

Table 3-1. Percentages of Responding Departments in Each Department Type Answering Questions 3 and 4, (Reporting Numbers of Alarms Received per Month).

DEPARTMENT TYPE:	<u>% Responding Departments</u>
City (50+)	96
City (10-49)	96
50 Largest	73
Township	72
County	57
City (1-9)	55
State	23

Using the numbers of alarms supplied by the responding departments, mean and median numbers of alarms received per Department Type per month were calculated. These two statistical measures of central tendency showed that in some cases, (the responding States and Fifty Largest Cities in particular), the data were heavily influenced by a few departments with

extremely large numbers of alarms. Although Appendix B presents both means and medians, the discussion and text tables will deal only with medians* -- the measure of choice when the data are skewed.

The median number of alarms per month reported by the responding Fifty Largest Cities was about five times greater than the median for responding State departments. Among the City Department Types, the median numbers of alarms per month appeared to be related to the size of the Department Type.

Table 3-2. Of the Departments Reporting Numbers of Alarms Per Month, Median Number of Alarms (of All Kinds) Per Month by Department Type.

DEPARTMENT TYPE:	<u>Number of Departments Supplying Data</u>	<u>Median Number of Alarms Per Month</u>
50 Largest	28	520
State	8	120
City (50+)	73	64
Township	18	26
City (10-49)	84	20
City (1-9)	45	5
County	43	5

When the data were broken down by means of receiving alarms for each Department Type, it appeared that with the exception of the Fifty Largest Cities, States, and Cities (1-9) there was a tendency for the greatest number of alarms to be received via "Direct-to-Police" Alarm Displays, the next greatest number were received via Central Stations, and the next greatest

* If the number of alarms received by each responding department is set down in order from smallest to largest, the median is the number exactly in the middle of that distribution. That is, half of the responding departments reported receiving fewer than the median (number of alarms), and half reported receiving more than the median (number of alarms).

number were received via Automatic Dialers. The median numbers of alarms for responding Fifty Largest City Departments showed highest numbers of alarms received via Central Stations, followed by those received via Automatic Dialers and Direct-to-Police Alarm Displays. (Printing Receiving System data are not reported separately because only eight departments reported receiving any alarms via that system.) "Other" alarms are not reported separately. The "Other" alarms were almost always described as "at-the-scene" audible alarms which sound at the subscriber's site and result in a telephone call to the police department, or a response by a patrolman nearby.

Table 3-3. Of the Departments Reporting Numbers of Alarms Per Month, Median Numbers of Alarms Received Via Specified Means of Receiving.*

DEPARTMENT
TYPE:

	MEDIAN NUMBERS OF ALARMS PER MONTH VIA:		
	<u>Alarm Displays</u>	<u>Central Stations</u>	<u>Automatic Dialer</u>
50 Largest	68	238	150
City (50+)	38	25	17
State	35	5	10
City (10-49)	15	10	3
Township	17	5	3
City (1-9)	5	9	4
County	4	2	2

* Medians calculated using only those departments which reported alarms received via each alarm receiving system separately. The medians presented in Table 3-2 included data from those departments which gave only total numbers of alarms received each month.

The numbers of alarms and false alarms reported by the responding departments showed that about nine alarms in ten were false alarms

(ones for which there was no evidence of unauthorized entry or property damage). That is, overall, 92% of all the alarms reported by the responding departments were labeled by them as false alarms. (See discussion in Section 2.2.3, page 30). Counties and Townships, which received relatively smaller numbers of alarms per department, reported lower percentages of false alarms; 75% and 73%, respectively.

Responding County departments reported a lower percentage of false alarms received via Alarm Displays in the Department than did the other Department Types. Responding Townships reported a much lower percentage of false alarms received via Central Stations.

Table 3/4. Of the Departments Reporting Numbers of Alarms and False Alarms, Percentages of Total Alarms (Q.3) that Were Reported to be False Alarms (Q.4) for Specified Alarm Receiving System by Department Type.

ALARM RECEIVING SYSTEM:		% FALSE ALARMS BY DEPARTMENT TYPE:					
	<u>County</u>	<u>50 Largest</u>	<u>City 1-9</u>	<u>Township</u>	<u>City 50+</u>	<u>City 10-49</u>	<u>State</u>
Displays in							
Depts	71	89	91	91	93	94	97
Central							
Stations	91	93	92	54	81	80	80
"Other"							
Systems	100	94	83	96	75	97	**
Automatic							
Dialer	80	98	88	87	82	81	93
All Systems*	75	94	91	73	88	93	97

* "All Systems" percentages include the numbers supplied by departments which gave only total alarms and false alarms but did not specify alarm receiving system.

** No "other" alarms were reported.

2.2.4 Night Vision Equipment

10. Do you use night vision equipment in your department?
 Yes
 No (IF "NO", SKIP TO QUESTION 14.)
11. (IF "YES" TO QUESTION 10) Mark X by each of the following kinds of night vision equipment that you use in your department.
- Night Vision Scopes SUITABLE FOR RIFLES (can also be hand-held when needed)
 Hand-held Passive Image Intensifier (Nightscope)
 NOT SUITABLE FOR RIFLE MOUNTING
 Hand-held Infrared Device which is NOT SUITABLE FOR RIFLE MOUNTING
 Low-light Level (Closed Circuit) TV (operates under night-time conditions WITHOUT artificial light)
 Other (Specify)

Only 52 of the 447 responding departments (12%) reported that they were using any night vision equipment at the time of the survey. All but 5 of these departments belonged to one of the three largest Department Types: Fifty Largest Cities, Cities (50+), or States. About half of the Fifty Largest Cities (49%) and about one-third of the States (30%) reported at least one item of night vision equipment in their departments. None of the Cities (1-9) or Townships reported having this equipment.

Table 10. Numbers and Percentages of Departments in Each Department Type Reporting Any Night Vision Equipment.

DEPARTMENT TYPE:	Number Depts. <u>Having Any</u>	% Depts. <u>Having Any</u>
50 Largest	22	49
State	14	30
City (50+)	11	14
County	4	5
City (10-49)	1	1
City (1-9)	0	0
Township	0	0

Among the departments that had any night vision equipment, the most common item was the Hand-Held Night Scope-Not for Rifle (60% of those with any night vision equipment). The other types of night vision equipment listed in the questionnaire (Hand-Held Scope Suitable for Rifle, Hand-Held Infrared Device, and Low-Light Level TV) were each cited by slightly more than one-fourth of the departments with any night vision equipment. There did not appear to be any major differences among the three Department Types which were the primary users of night vision equipment except that Cities (50+) were slightly less likely to have Hand-Held Night Scope (Not for Rifle) than were States and Fifty Largest Cities.

Table 11. Of the Departments With Any Night Vision Equipment ("Yes" to Q. 10), Percentages* Having Each Type of Night Vision Equipment).

NIGHT VISION DEVICE:	DEPARTMENT TYPE:**			
	% All Depts. With Any Night Vision Device (n = 52)	%50 Largest With Any Night Vision Device (n = 22)	% State With Any Night Vision Device (n = 14)	% City (50+) with Any Night Vision Device (n = 11)
Hand-Held Night Scope (Not for Rifle)	60	68	64	45
Hand Held <u>Infrared</u> Device	29	27	29	27
Night Vision Scope Suitable for Rifle	27	32	21	36
Low-Light Level TV	27	27	29	27
Other	4	0	14	0

* Percentages add to more than 100% since multiple answers were allowed.

** Only States, 50 Largest Cities, and Cities (50+) are reported since fewer than 5 responding departments in each other Department Type reported any night vision equipment.

12. Does your department have any problems with ANY of these night vision devices?

Yes

No (IF "NO" SKIP TO QUESTION 14)

13. (IF "YES" TO QUESTION 12) MARK X for EACH PROBLEM you have had for EACH KIND OF EQUIPMENT:

<u>PROBLEM</u>	<u>KIND OF EQUIPMENT</u>			
	Night Vision Scope Suitable for Rifle and Hand Use	Hand-held Nightscope <u>Not</u> Suitable For Rifle	Hand-held Infrared Device <u>Not</u> Suitable For Rifle	Low-Light Level TV
Poor image quality (resolution)				
Difficult to choose the appropriate lens				
Regular camera lenses cannot be used with night vision devices				
Device is too delicate for normal use				
Poor reliability (failures with tubes, power supplies, etc.)				
Other Problem (specify)				

Most of the 52 responding departments with night vision equipment (69%) reported "No Problems" with any of this equipment. Within the three largest Department Types, a slightly smaller percentage of the States with this equipment (21%) reported problems than did Cities (50+) and the Fifty Largest Cities. These percentages are based on relatively small numbers of departments, however.

Table 12. Of those Departments With Any Night Vision Equipment, Percentages Reporting At Least One Problem With This Equipment.

DEPARTMENT TYPE:*	<u>% Depts. With At Least One Problem</u>
City (50+) [n=11]	36
50 Largest [n=22]	32
State [n=14]	21
All Departments [n=52]	29

*Only States, 50 Largest Cities, and Cities (50+) are reported since fewer than 5 responding departments in each other Department Type reported any night vision equipment.

Using only those responding departments which had each type of night vision equipment, it appears that approximately equal percentages of the users of each device said "No Problems". Since the percentages were based on such small numbers of respondents, the differences shown in Table 13/11. are not likely to be significant.

Table 13/11. Of those Departments Having Each Type of Night Vision Equipment, Percentages Reporting "No Problem".

NIGHT VISION DEVICE:	<u>Number Responding Depts. With That Night Vision Device</u>	<u>Number of Depts. With Equip. Saying "No Problems"</u>	<u>% Depts. Saying "No Problems"</u>
Hand-Held Infrared Device	15	12	80
Low-Light Level TV	14	11	79
Night Vision Scope Suitable for Rifle	14	10	71
Hand-Held Night Scope (Not for Rifle)	31	20	65

Because only a few of the users of each night vision device mentioned problems, and because only a few departments mentioned each problem; examples of the problems mentioned are listed below by night vision device, without numbers or percentages of departments. For such a small numerical base, any detailed discussion would be unjustified.

Table 13. Examples of Problems Mentioned for Each Night Vision Device.

NIGHT VISION DEVICE:	PROBLEMS MENTIONED:
Hand-Held Infrared Device	Poor image quality Heavy, bulky device Difficult to get good camera results Poor identification Greater amplification needed Not suitable for populated areas
Low-Light Level TV	Poor image quality Lens problems Too delicate Heavy, bulky (housing and camera) Poor identification Too costly Lack of adequate service facilities
Night Vision Scope Suitable for Rifle	Poor image quality Lens problems Limit on distance at which equipment is usable Unavailability of adapters for front lenses and cameras Not suitable for use when light source is a) from oncoming vehicles' headlights and reflected on the lens; and b) from the interior of a building under surveillance from outdoors
Hand-Held Night Scope (Not for Rifle)	Poor image quality Lens problems Heavy, bulky device Difficulty in using; problem in getting good camera results Limitations: Distance for use/Amplification Poor identification Unavailability of adapters for front lenses and cameras

14. What night vision devices, if any, will your department **BE LIKELY TO BUY** in the next 5 years? (MARK X BY EACH ITEM THAT APPLIES)

We will probably NOT BUY any night vision devices in that time.

Night Vision Scope SUITABLE AS RIFLE AND HAND SCOPE
Hand-held Passive Image Intensifier (Nightscope) NOT
suitable for rifle mounting

Hand-held Infrared Device NOT suitable for rifle mounting

Low-Light Level (Closed Circuit) TV (operates under
nighttime conditions WITHOUT artificial light)

Other (Specify)

Although only 39% of the 447 responding departments said they would buy at least one item of night vision equipment in the next 5 years (data collected in Summer, 1972), the majorities of responding departments in the three largest Department Types (Fifty Largest Cities, Cities (50+), and States) said they would be buying night vision equipment. Only small percentages of responding Townships and Cities (1-9) said they would be buying such equipment in the near future.

Table 14-1. Percentages of Departments in Each Department Type Which Said They Would Buy Any Night Vision Equipment in the Next 5 Years.*

DEPARTMENT TYPE:	% Depts. That Will Buy Night Vision Equip. <u>In the Next 5 Years</u>
50 Largest [n=45]	73
State [n=47]	64
City (50+) [n=81]	56
City (10-49) [n=89]	37
County [n=77]	25
City (1-9) [n=83]	16
Township [n=25]	12
All Departments	39

*Data collected in the Summer of 1972.

In the three largest Department Types, smaller percentages of the responding departments said they would be buying Hand-Held Infrared Devices than the other three night vision items. Almost half of the responding Fifty Largest City departments said they would buy Low-Light Level TV in the next 5 years, and 42% of the State departments said they would buy Night Vision Scopes Suitable for Rifles in that time period. Between about 10% and about 15% of the responding Cities (10-49) said they would buy each of the night vision devices, and between about 5% and about 10% of the departments in the other three Department Types were planning to buy each item.

Table 14-2. Percentages of Departments in Each Department Type Which Said They Would Buy Specified Item of Night Vision Equipment In the Next 5 Years.*

DEPARTMENT TYPE:	% THAT WILL BUY:			
	Low-Light Level TV	Night Scope for Rifle or Hand-Held	Hand Held Night Scope (Not for Rifle)	Hand-Held Infrared Device
Fifty Largest	49	22	36	11
City (50+)	34	26	21	12
State	36	42	23	6
City (10-49)	11	16	12	15
County	9	9	8	2
City (1-9)	5	12	5	5
Township	4	8	8	8
All Departments	20	19	15	9

*Data collected in the Summer of 1972.

Most of the responding departments which said they would be buying a specified item of night vision equipment did not already have that particular item of night vision equipment. Most of the items specified for purchase in the near future were to provide night vision capability where none existed or to add a different kind of night vision capability, rather than to buy more of an item that a department already had.

The only instance in which this was not the case was in State departments buying Hand-Held Night Scopes Not Suitable for Rifles--approximately half of the State departments which said they would buy Hand-Held Night Scopes (Not for Rifles) already had that item of night vision equipment in their departments. (See Table 14/11. on next page).

2.2.5 Closed Circuit Television (CCTV) and Video Tape Recorder (VTR)

Discussions with police departments during survey administration and comments written on returned questionnaires indicated that the use of Closed Circuit Television (CCTV) and Video Tape Recorders (VTR) was often related. Although there were cases in which CCTV was used alone or VTR was used alone, in many cases CCTV and VTR were employed as parts of a single system. For this reason, these two items of equipment will be discussed together.

15. Does your department use closed circuit TV which **REQUIRES DAYLIGHT OR ARTIFICIAL ILLUMINATION?**

Yes

No (IF "NO" SKIP TO QUESTION 18.)

18. Does your department have a video tape recorder?

Yes

No (IF "NO" SKIP TO QUESTION 21)

There were large differences among the seven Department Types in their use of CCTV and VTR. Almost all (89%) of the responding Fifty Largest City departments had VTR, more than two-thirds of the States had VTR, and more than half (53%) of responding Cities (50+) had VTR. Fewer than 10% of the Cities (1-9) and Townships, however, reported having VTR. The same relative trend was reported for CCTV use among the Department Types, but in nearly every

Table 14/11. Percentages of Departments in Each Department Type Which Currently Had/Will Buy and Which Currently Did Not Have/Will Buy Specified Item of Night Vision Equipment.

DEPARTMENT TYPE.

NIGHT VISION DEVICE:

	Low-Light Level TV			Night Scope for Rifle or Hand-Held			Hand-Held Night Scope (Not for Rifle)			Hand-Held Infrared Device		
	% Now Have/Will Buy	% Don't Now Have/Will Buy		% Now Have/Will Buy	% Don't Now Have/Will Buy		% Now Have/Will Buy	% Don't Now Have/Will Buy		% Now Have/Will Buy	% Don't Now Have/Will Buy	
Fifty Largest [n=45]	9	40		4	18		7	29		2	9	
City (50+) [n=81]	2	32		1	25		0	21		1	11	
State [n=47]	6	30		4	36		13	11		2	4	
City (10-49) [n=89]	0	11		0	16		0	12		0	15	
County [n=77]	0	9		0	9		1	6		1	1	
City (1-9) [n=83]	0	5		0	12		0	5		0	5	
Township [n=25]	0	4		0	8		0	8		0	8	
All Departments [n=447]	2	18		1	17		2	13		1	8	

Department Type higher percentages of departments used VTR than had CCTV.

Table 15/18-1. Percentages of Responding Departments in Each Department Type Which Had CCTV and

DEPARTMENT TYPE:	% Depts. <u>With VTR</u>	% Depts. <u>With CCTV</u>
50 Largest	89	71
State	68	45
City (50+)	53	37
City (10-49)	22	20
County	17	12
City (1-9)	8	6
Township	4	4

A cross tabulation was performed to attempt to show the relationship between the use of CCTV and VTR. In the smaller Department Types, the majorities of departments had neither CCTV nor VTR. Seventy-One percent of the responding Fifty Largest Cities, however, and 40% of States had both CCTV and VTR. It also appears from this cross tabulation that larger departments which had CCTV were also likely to have VTR capability; only a very few departments reported having CCTV and no VTR. Relatively high percentages of departments in the larger Department Types did report having VTR capability without having CCTV.

Table 15/18-2. Percentages of Departments in Each Department Type With Specified Combination of CCTV and VTR.

DEPARTMENT TYPE:	% Neither <u>CCTV Nor VTR</u>	% Both <u>CCTV and VTR</u>	% <u>VTR Only</u>	% <u>CCTV ONLY</u>
Township	92	0	4	4
City (1-9)	90	5	4	1
County	78	6	9	5
City (10-49)	72	15	7	6
City (50+)	44	35	19	2
State	28	40	28	4
50 Largest	11	71	18	0
All Departments	62	23	12	3

Although it is not possible to conclude from these data that departments which had both Closed Circuit TV and Video Tape Recorders used these two systems together, there are indications in Question 19 that many did. Comments from departments revealed that a reference to having VTR capability might mean any one of three types of VTR systems: (1) a video tape recorder which could only be used in conjunction with a CCTV, (2) a video tape recorder **system** (generally portable) which included a camera, and (3) a video tape recorder which could be used for both, or either, of these applications.

16. (IF "YES" TO QUESTION 15) In which of the following ways do you use closed circuit TV in your department? (MARK X BY EACH ITEM THAT APPLIES)

Checking on prisoners
Police line-ups
Surveillance within Department's buildings (other than prisoners and line-ups)
Watching activity during civil disturbances
Surveillance of "high crime" districts
Training
Other (Specify)

19. (IF "YES" TO QUESTION 18) How does your department use the video tape recorder? (MARK X BY EACH ITEM THAT APPLIES)

With closed circuit TV
Police line-ups
Recording traffic violations
Collecting evidence at scene of crime (OTHER than traffic violations)
Training
Other (Specify)

Since the choices supplied for these two questions were necessarily different (because of the different characteristics of CCTV and VTR), it was possible to compare the responses of the users for only two categories: Training and Police Line-ups. By far the most common use of both of these systems was for Training. Sixty-eight percent of the 116 responding departments

with closed circuit televisions used them for Training and 86% of the 156 departments with video tape recorders used them for training. About one-fifth of the users of each of these systems said they used them for Police Line-ups, not one of the most frequent uses of either system.

The 116 responding departments with closed circuit television were using this system in three primary ways other than Training: 37% of these departments used CCTV for Checking on Prisoners, 37% used it for Surveillance Within the Department Buildings (Other than Prisoners/Line-ups), and 37% used it for Watching Civil Disturbances. There were only a few Department Type differences in use of CCTV: A much smaller percentage of the States with CCTV used it for Checking Prisoners (5%) than the other Department Types. The Fifty Largest Cities with CCTV were more likely to use it for Watching Civil Disturbances (56%) than were Cities (50+) or Cities (10-49). Cities (10-49) with CCTV were less likely than the larger Department Types to use CCTV for "Other" Surveillance in Police Buildings.

Table 16/15. Of the Departments in Specified Department Type* With Closed Circuit Television, Percentages** Using It for Specified Purpose.

CCTV USE:

	% All Depts. With CCTV (n=116)	DEPARTMENT TYPE*:			
		% State With CCTV (n=21)	% 50 Largest With CCTV (n=32)	% City 50+ With CCTV (n=30)	% City 10-49 With CCTV (n=18)
Training	68	81	75	63	56
Checking on prisoners	37	5	44	40	39
"Other" Surveillance in Police Buildings	37	48	37	40	22
Watching Civil Distur- bances	37	43	56	27	17
Police Line-ups	18	14	19	17	17
Surveillance of high crime districts	9	14	12	3	11
Other	32	29	25	37	33

* Counties, Cities (1-9), and Townships are not presented since fewer than 10 of the responding departments in these Department Types had CCTV.

** Percentages add to more than 100% since multiple answers were allowed.

About one-third of the responding departments with CCTV listed some use for this system "Other" than the categories listed in the questionnaire:

- Use with drunken drivers
- Booking/Interrogation
- Other surveillance (such as surveillance of narcotics and vice operations)
- Traffic/parades
- Miscellaneous other uses such as for court-related taping, community services, administrative matters, external ground security and CCTV network reception.

The majority (86%) of the 156 responding departments with video tape recorders were using them for Training. In addition, almost half of the departments with VTR were using them for Collecting Evidence Other Than Traffic Violations (49%) and With Closed Circuit TV (47%). About one-fourth of the VTR users were Recording Traffic Violations with that device.

Cities (10-49) with VTR were the only Department Type in which the highest percentage of departments with VTR used it for a purpose other than Training -- 80% of the City (10-49) VTR users said they used it for Collecting Evidence Other than Traffic Violations while only 65% used it for Training. A smaller percentage of County VTR users than any other Department Type used VTR for recording Traffic Violations.

Table 19/18. Of the Departments in Specified Department Type* With Video Tape Recorder, Percentages** Using It for Specified Purpose.

VTR USE:

	DEPARTMENT TYPE:					
	% All Depts. With VTR (n=156)	% 50 Largest With VTR (n=40)	% State With VTR (n=32)	% City 50+ With VTR (n=43)	% County With VTR (n=13)	% City 10-49 With VTR (n=20)
Training	86	95	94	91	69	65
Collecting Evidence						
Other Than Traffic	49	40	37	49	54	80
With CCTV	47	45	53	51	31	45
Traffic Violations	27	20	28	30	8	35
Police Line-ups	19	20	9	26	15	25
Other	43	50	37	40	46	45

* Cities (1-9) and Townships are not presented since fewer than 10 of the responding departments in those Department Types had VTR.

** Percentages add to more than 100% since multiple answers were allowed.

It is of interest that 101 of the 156 responding departments with VTR (65%) also had CCTV (Table 15/18), but only 74 of those departments (47%) said VTR was used With CCTV.

Forty-three percent of the responding departments with VTR systems listed at least one "Other" use for the system. In some cases these were the same "Other" activities that were listed by closed circuit television users:

- Use in regard to drunken drivers
- Other surveillance
- Civil disturbance
- Bookings/Interrogation/Evidence
- Administrative tasks/Community service/Public Relations
- Traffic-related uses

17. Tell us about any PROBLEMS that your department has with this CLOSED CIRCUIT TV SYSTEM.
20. What PROBLEMS, if any, has your department had with the video tape recorder?

About the same percentage of VTR users reported at least one problem with that system as did users of CCTV. And within the Department Types, about the same percentages of the responding departments which had each system reported problems. However, State and Fifty Largest City departments with VTR and those with CCTV were slightly more likely to cite problems with those two systems than were the smaller Department Types.

Table 17/15 and 20/18-1. Of the Departments in Specified Department Type* Having CCTV or Having VTR, Percentages Citing at Least One Problem ** With The System.

CITING PROBLEM WITH:	DEPARTMENT TYPE:*					
	% All Depts. With System	% State With System	% 50 Largest With System	% City 10-49 With System	% City 50+ With System	% County With System
CCTV	37	47	44	33	31	*
VTR	36	44	47	30	35	15

* Townships, Cities (1-9), and Counties are not presented for CCTV since fewer than 10 of the responding departments in those Department Types had CCTV. Townships and Cities (1-9) are not presented for VTR, because there were fewer than 10 VTR users.

** Answers such as "Few problems" or "normal wear and tear" were counted as "No Problems".

The respondents' narrative answers were used to develop codes for this question. A wide variety of problems was mentioned for these systems, but no single problem was cited by as many as 10% of the users of either system.

Table 17/15 and 20/18-2. Of the 116 Departments Having CCTV and the 156 Departments Having VTR, the Percentages* Citing Specified Problem With Those Systems.

PROBLEM:	% Depts. With CCTV (n=116)	% Depts. With VTR (n=156)
IMAGE QUALITY (unclear, poor resolution, streaks)	6	5
BATTERIES/POWER SUPPLIES	2	4
HEADS (need for replacement)	**	3
ILLUMINATION REQUIREMENT (adverse effects of low light condition.	5	2
VIEWING RANGE/NEED REMOTE CONTROL SCAN/NEED MORE EQUIP. (problems with auto. pan and tilt).	5	**
CAMERA BREAKDOWN / DURABILITY	2	2
PORTABILITY (need current conversion, damage in transit)	4	5
INTERCHANGEABILITY OF COMPONENTS/SYSTEMS	2	5
MAINTENANCE - COST/TIME/PARTS (delays in getting parts, repairs)	7	4
BREAKDOWN/RELIABILITY (unspecified)	6	8
TRAINING OF PERSONNEL.	3	4
LACK OF STANDARDS FOR PURCHASING	1	1
OTHER.	11	9

NO PROBLEM/FEW PROBLEMS/NORMAL WEAR & TEAR/NEW EQUIPMENT	35	44
UNKNOWN: SERVICED BY VENDOR	**	1
NO ANSWER	28	20

* Percentages, except "No Problem", "No Answer", "Few Problems", "New Equipment", "Unknown", and "Normal Wear and Tear", may represent double counting since multiple answers were allowed.

** Problem/Statement not mentioned for this system.

"Other" problems (mentioned by one or two departments each) cited for CCTV

were:

- Breakdown of monitors
- Breakdown of non-metal controls
- Images "burn" into the camera or monitor tube
- Tape-related problems
(e.g., no uniform tape formats between agencies,
tape distortions due to heat and storage)
- Heat generated by camera
- Equipment is target due to fixed location

- Vidicon tubes (problem unspecified)
- Lights on camera are blinding
- Manpower requirements for equipment
- High cost of electronic splicing equipment
- Overall general poor quality

"Other" problems cited for VTR were:

- Tape-related problems (e.g., tapes not long enough; manpower requirements for developing training tapes; quality control for EIAJ Type 1 standard brings production problems).
- Present system incomplete
- Reel does not turn
- Fading out
- Stretched drive belt
- Narrow lens capability
- Vehicle mounting brackets
- Breakdown of non-metal controls
- Constant change of equipment makes present set-up outdated

21. Will your department be **LIKELY TO BUY** (a) a closed circuit TV system requiring daylight or artificial light, and/or (b) a video tape recorder **IN THE NEXT 5 YEARS?**

(a) Closed circuit TV system

Yes
No

(b) Video tape recorder

Yes
No

More than half of the responding Fifty Largest Cities (67%), States (58%), and Cities (50+) [54%] said they would buy a closed circuit television system within the next 5 years*; and more than one-quarter of the Cities (10-49)

* Data collected in the Summer of 1972.

[33%] and Counties (25%) said they would buy CCTV in the near future; but only small percentages of the Cities (1-9) [13%] and Townships (12%) said they would soon buy CCTV. Approximately the same percentages of departments in each of these Department Types said they would buy a video tape recorder in the next 5 years.

Most of the Fifty Largest Cities which said they would buy either CCTV or VTR in the near future already had CCTV or VTR in their departments. Slightly larger percentages of the States which said they would buy these systems already had CCTV or VTR. About half of the Cities (50+) which were going to buy these systems already had CCTV or VTR in their departments. But in the smaller Department Types, higher percentages of the departments which said they would buy CCTV or VTR did not already have those systems. About three-quarters or more of the responding Townships and Cities (1-9), and Counties neither had nor would be buying CCTV or VTR.

Table 21. Percentages of Departments in Each Department Type Which Will Buy CCTV or VTR in the Next 5 Years.*

DEPARTMENT TYPE:	% WILL BUY:		% HAVE NOW/ WILL BUY:		% DON'T HAVE NOW/ WILL BUY:	
	CCTV	VTR	CCTV	VTR	CCTV	VTR
50 Largest	67	74	51	67	16	7
State	58	68	32	49	26	19
City (50+)	54	54	21	27	33	27
City (10-49)	33	32	11	7	21	25
County	25	27	5	10	19	17
City (1-9)	13	14	2	1	11	13
Township	12	20	0	4	12	16
All Departments	37	39	16	20	21	19

* Data collected in the summer of 1972.

2.2.6 Cameras

22. What kinds of CAMERAS, if any, are now used by your department?
(MARK X BY EACH ITEM THAT APPLIES)

NONE (IF YOU CHECKED "NONE", SKIP TO QUESTION 24)

KINDS OF CAMERAS

Movie Camera

Still Cameras

35 mm Single-lens Reflex

35 mm Range-finder

4" x 5" Format

Roll Film Camera with automatic flashbulb advancer and exposure control

Camera which uses special film for rapid automatic processing of pictures

Other (Specify)

Ninety percent of the responding departments had at least one of the cameras listed in Question 22.* All of the responding State and Fifty Largest City departments and 99% of the City (50+) departments had at least one camera. Only in Townships (84%) and Cities (1-9) [69%] did fewer than ninety percent of the departments have at least one of the cameras listed.

Table 22-1. Percentages of Departments in Each Department Type Which Had at Least One Camera.

DEPARTMENT TYPE:	% Having At Least <u>One Camera</u>
50 Largest	100
State	100
City (50+)	99
City (10-49)	93
County	91
Township	84
City (1-9)	69
All Departments	90

* All questions about cameras deal only with presence or absence of cameras in departments, not with numbers of cameras represented.

Of the departments which had at least one camera, the most common was a Camera Which Uses Special Film for Rapid Automatic Processing of Pictures. More than two-thirds of the departments with cameras in every Department Type (100% of Fifty Largest Cities), had at least one camera of this kind.

The second most frequently represented camera was a 4" x 5" Format Camera. More than 90% of the two largest City Department Types had a camera of this kind.

In every case, higher percentages of the Fifty Largest City departments had each kind of camera than any other Department Type. Every camera listed was represented in at least half of these largest City departments. In Cities (1-9), in contrast, only three of the cameras listed were represented in more than 10% of the responding departments with cameras.

Table 22-2. Of the Departments in Each Department Type With At Least One Camera, Percentages Having Specified Kind of Camera.

CAMERA TYPE:	DEPARTMENT TYPE:							
	% All Depts. (n=403)	% 50 Largest (n=45)	% City 50+ (n=80)	% City 10-49 (n=83)	% County (n=70)	% Township (n=21)	% State (n=47)	% City 1-9 (n=57)
Camera with Special film for <u>rapid</u> auto. processing	81	100	86	83	80	76	70	68
4" x 5" format	62	98	94	57	39	48	66	26
Roll film (Auto. flash advancer/ Auto. exposure)	48	76	45	43	43	33	66	37
35 mm single-lens reflex	47	98	71	33	24	24	72	7
Movie camera	35	91	54	13	14	5	70	5
35 mm range-finder	21	51	29	14	11	10	34	4
Other	20	51	30	8	11	0	28	7

Twenty percent of the departments with cameras (mainly in Fifty Largest City, City (50+), and State Department Types) reported having some camera "Other" than those listed in the questionnaire. Since several of these "Other" cameras were mentioned by as many as 15 departments, it is quite likely that more departments would have checked them if they had been listed as categories in Question 22. These "Other" types of cameras were

- Fingerprint camera
- "Professional" camera*
- 2-1/4 or 120 roll film camera (unspecified)**
- Twin-lens reflex camera
- Mug camera
- Subminiature camera
- Copy camera
- Time elapsed surveillance camera
- Binocular cameras

* Term is taken from Your Guide to Photography: A Practical Handbook; by Helen Finn Bruce. (New York: Barnes & Noble Books, 1965). It refers to types of cameras larger than 35mm. In this report, only large cameras (larger than 35mm) coded according to size rather than function appear in this category. (e.g., 2-1/4" x 2-1/4" single lens reflex, 2-1/4" x 3-1/4" cameras, 2-1/4" x 2-3/4" cameras, view cameras)

** About 15 respondents specified this type of camera, so it was made a separate category. These answers could refer to either a single-lens or twin-lens reflex camera, but it is probable that most respondents were referring to a twin-lens reflex camera.

23. What problems, if any, has your department noticed with the cameras you marked in Question 22?

- 23.A. Problems with movie cameras
- 23.B. Problems with 35 mm Single-lens Reflex Camera
- 23.C. Problems with 35 mm Range-Finder Camera
- 23.D. Problems with 4" x 5" Format Camera
- 23.E. Problems with Roll Film Camera with automatic flashbulb advance and exposure control
- 23.F. Problems with camera which uses special film for rapid automatic processing of pictures
- 23.G. Problems with OTHER CAMERA (Specify camera type)

Type: _____

Problem: _____

Most of the users of each of these camera types either left the question blank, said "No Problems", mentioned "Normal Wear and Tear", or said the camera was new and had no problems yet. Between about one-fourth and about one-third of the users of each of these types of cameras listed a specific problem.

Table 23. Of the Departments Which Had Each Specified Camera, Percentages Which Said "No Problems", Gave No Answer, or Cited at Least One Problem With that Type of Camera.

TYPE OF CAMERA:	ANY PROBLEMS?:		
	<u>% Specified Problem</u>	<u>% "No Problems"*</u>	<u>% No Answer</u>
Roll film camera with auto. flash advancer & exposure cont.(n=195)	32	46	22
Camera with special film for <u>rapid</u> auto. processing (n=327)	31	47	22
4" x 5" Format (n=249)	28	48	24
35 mm range-finder (n=86)	24	53	23
35 mm single-lens reflex (n=188)	24	55	21
Movie (n=142)	23	60	17

* Answers such as "Few Problems" or "Normal Wear and Tear" were counted as "No Problems".

2.2.6.1 Problems with Movie Cameras

About three-quarters of the 142 responding departments with movie cameras either said they had "No Problems" or "Normal Wear and Tear", or gave No Answer about problems with movie cameras. None of the specific problem categories was mentioned by more than 8% of the departments which had movie cameras. (Codes were developed from narrative responses.)

Table 23A. Of the 142 Departments Having Movie Cameras, Percentages*
Citing Each Problem.

PROBLEM WITH MOVIE CAMERA	<u>% Departments Having Movie Cameras</u> (n=142)
Training of Personnel in use	8
Film purchasing and processing (e.g., cost of film and/or processing/delay in processing)	5
Lenses/Lens Mounts (e.g., limited lens capability; automatic zoom lens better to have than turret lens)	4
Limited application/Replacement needed	4
Power supply	3
Breakdown/Reliability (area unspecified)	2
Maintenance: Cost/Time/Parts (e.g., no local repair service).	1
Other.	4
No Problems/Normal Wear & Tear	60
No answer.	17

* Percentages, except "No Problems", "No Answer", "Normal Wear and Tear", may represent double counting since multiple answers were allowed.

"Other" problems with movie cameras included:

- Weight (heaviness) of the camera
- Lack of sound for film
- Windup motor should be replaced with an automatic one
- Difficulty threading film with 16 mm camera (especially when speed is necessary)

- Occasional disengagement of film magazine from sprockets when filming (which means that camera must be opened to reset the magazine)
- Synchronization of shutter and speeds
- Through-the-lens viewing is better than through viewfinder

2.2.6.2 Problems with Still Cameras

Just as for movie cameras, the majority of users of each type of still camera did not cite a problem with those cameras. The departments' narrative answers were used to develop "problem" categories. An attempt was made to develop categories which could be used for all five types of still cameras so that comparisons could be made. It was found, however, that a common set of categories could be developed for only four of the five camera types -- the problem statements for Camera With Special Film for Rapid Automatic Processing of Pictures were qualitatively different from the others.

As with movie cameras, none of the problem categories was very frequently mentioned. For the two 35mm cameras, the most frequently mentioned (8-9% of those with each camera) problem was Training of Personnel. Two problem categories having to do with the Flash Unit were most frequently (6% and 8%) mentioned by departments having Roll Film Camera with Automatic Flashbulb Advancer and Exposure Control. About 10% of those using the 4" x 5" Format Camera discussed its Size and Weight.

Table 23 B/C/D/E. Of the Departments Having Each Type of Still Camera, Percentages* Mentioning Each Problem.

PROBLEM:

	% Depts. Having 35 mm Single- Lens reflex (n=188)	% Depts. Having 35 mm Range- finder (n=86)	% Depts. Having 4" x 5" Format (n=249)	% Depts. Having Roll Film Camera: Auto. Flashbulb Advancer, Exposure Control (n=195)
Film purchasing and processing	2	0	3	3
Lenses/Lens mounts	2	0	1	3
Mirror	2	0	0	0
Range finder/Closeups	0	5	3	1
Light meter	2	1	0	1
Shutter	1	3	3	3
Film Advancer	3	2	0	3
Power of flash unit/ Illumination require- ment	1	0	0	6
Flash unit synchron- ization/Reliability of unit, bulbs	3	3	2	8
Batteries/Power supply	0	0	0	2
Size and weight	0	0	10	0
Maintenance: Cost/ Time/Parts/Cleaning	1	0	1	1
Breakdown/ Reliability (area unspecified)	0	2	2	3
Enlargement of pic- tures/Negative size, grain	4	1	0	4
Training personnel/ Complex equip./Need frequent Use	9	9	8	4
Limited application/ Replacement needed	0	2	2	4
Other	1	0	4	2
No Problems/Normal Wear & Tear/New Equip./Few Problems	55	53	48	46
No Answer	21	23	24	22

* Percentages, except for "No Answer", "No Problems", "Few Problems", "Normal Wear and Tear" and "New Equipment", may represent double counting since multiple answers were allowed.

A few "Other" problems were mentioned for these still cameras (none was given for the 35 mm Range-Finder);

35 mm Single-lens Reflex

- Camera cannot be used manually (all automatically operated)
- Hard to keep operational with some plastic parts

4" x 5" Format

- No attachments for fingerprinting, mug shots
- Expensive
- Too slow
- Poor flash unit
- Minor wiring problems
- Adverse effects of storage in case (causes tracks to malfunction, damage to shutter cable)
- Screws become loose due to transporting in vehicles

● Roll Film Camera: Auto. Flashbulb Advancer
and Exposure Control

- Problems with flash unit (difficulty unspecified)
- Cases not dust-proof enough
- Summer heat causes film damage

As with the other cameras discussed so far, the Camera Which Uses Special Film for Rapid Automatic Processing of Pictures caused problems for few of the responding departments. Only 31% of the departments having this kind of camera mentioned a specific problem. The most frequently mentioned problems had to do with the quality of pictures produced, environmental effects on film storage or processing, and problems with reproducing pictures. None of these was mentioned by as many as 10% of the departments which had this kind of camera, however.

Table 23F. Of the 327 Departments Having a Camera With Special Film for Rapid Automatic Processing of Pictures, Percentages Mentioning Each Problem.

PROBLEM:	% Depts, With This Camera (n=327)
Quality of reproduction: Detail/Contrast/Consistency	7
Film: Cost/Quality	6
Lack of negatives/Enlargement, Copy problems	6
Environmental effects on film storage, processing	5
Flash unit: Power/Reliability	3
Rollers	2
Maintenance: Cost/Time/Parts/Cleaning	2
Expense (reason unspecified)	2
Training of personnel	2
Limited application	2
Breakdown/Reliability (area unspecified)	1
Shutter	1
Other	3

No Problems/Normal Wear & Tear/New Equipment	47
No Answer	22

"Other" problems mentioned included:

- Application of protective coating to black-and-white film
- Problem with film (unspecified)
- Poor quality
- Disposal at crime scene of debris from developed film
- No close ups
- Too slow
- Settings get moved
- People take more photos than necessary because of immediate finished product

2.2.6.3 Future Purchase of Cameras

24. Which of the following types of cameras, if any, will your department BE LIKELY TO BUY within the next 5 years?

NONE. We will probably not buy any cameras in the next 5 years.

Movie camera

Still Cameras

35 mm Single-lens reflex

35 mm Range-finder

4" x 5" Format

Roll Film Camera with automatic flashbulb advancer and exposure control

Camera which uses special film for rapid automatic processing of pictures

Other (Specify)

About half or more of the responding departments in every Department Type said they would be likely to buy at least one camera in the next 5 years. State (87%) and Fifty Largest City (80%) departments most often said they would buy cameras: Counties (49%) said so least often.

Table 24-1. Percentages of Departments in Each Department Type Which Said They Would Buy a Camera in the Next 5 Years.

DEPARTMENT TYPE:	% Dept. Which <u>Will Buy Cameras</u>
State [n=47]	87
50 Largest [n=45]	80
City (50+)[n=81]	69
City (10-49) [n=89]	64
Township [n=25]	56
City (1-9) [n=83]	54
County [n=77]	49
All Departments	64

For four of the six types of cameras listed, one Department Type, the Fifty Largest Cities, consistently showed the highest or second-highest

percentage of potential buyers: 35 mm Single-Lens Reflex, Camera With Special Film for Rapid Automatic Processing, Movie Camera, Roll Film Camera With Automatic Flash Advancer and Exposure Control, and the 4" x 5" Format. There are two additional points of interest regarding the Camera Which Uses Special Film for Rapid Automatic Processing. First, more of the Cities (1-9) than any other Department Type said they would buy this type of camera. Secondly, it was given greater emphasis (in terms of purchasing) by Cities (1-9) than any other kind of camera within any other Department Type. There were no great differences among the Department Types in the percentages of departments which will buy 35 mm Range-Finder Cameras.

Table 24-2. Of the Departments in Each Department Type that Will Be Buying Cameras, Percentages* Which Will Be Buying Specified Type of Cameras.

TYPE OF
CAMERA:

	% 50 Largest (n=36)	% State (n=41)	% City 50+ (n=56)	% City 10-49 (n=57)	% Township (n=14)	% County (n=38)	% City 1-9 (n=45)
35 mm single-lens reflex	75	56	52	33	29	26	16
Camera with special film for rapid auto. process.	53	41	32	33	21	39	60
Movie	39	34	36	28	50	13	11
Roll film camera with auto. flash advancer and expo- sure control	42	44	20	16	21	29	24
4" x 5" format	44	29	21	30	21	18	11
35 mm range-finder	14	17	12	12	7	11	9
Other	39	22	21	9	7	13	2

* Percentages add to more than 100% since multiple answers were allowed.

"Other" types of cameras mentioned were the same as those "Other" cameras already represented in departments. (See Question 22.)

2.2.7 Standards for Other Security Devices

25. Mark X by each item below that needs PERFORMANCE STANDARDS.
(Mark X by "NONE" if standards are not needed for any of the items.)

None

General purpose locks (padlocks, door locks)

Special purpose locks for detention centers

Penetration-resistant glass (For example: bullet-proof glass, laminated glass, etc.)

Security screens and grills

Departments in the two Largest City Department Types, Fifty Largest and Cities (50+), were most likely to say at least one of the devices listed in Question 25 needed performance standards. Sixty-nine percent of the responding departments in these City Department Types selected at least one security device for performance standards, whereas only 42% of the Cities (1-9) and 51% of the States did.

Table 25-1. Percentages of Departments in Each Department Type Saying At Least One of the Other Security Devices Listed in Q. 25 Needed Performance Standards.

DEPARTMENT TYPE:	% Depts. Marking <u>At Least One Item</u>	% Depts. <u>"None"</u>	% Depts. <u>No Answer</u>
50 Largest	69	20	11
City (50+)	69	25	6
City (10-49)	66	33	1
County	62	38	0
Township	60	40	0
State	51	45	4
City (1-9)	42	54	4

In every Department Type, slightly higher percentages of departments said either Penetration Resistant Glass or Security Screens and Grills (or both) needed performance standards than selected General Purpose Locks

or Special Purpose Locks for Detention Centers. More than half of the Fifty Largest Cities (56%) and Cities (50+) [51%] and nearly half of the Cities (10-49) [47%] said that performance standards were needed for Penetration Resistant Glass. More than 40% of the departments in every Department Type except States and Cities (1-9) said that there should be performance standards for Security Screens and Grills.

The percentage differences among these four security items were not great. In every Department Type, except States and Townships, each of these security devices was said to need performance standards by about one-quarter to one-half of the responding departments.

Table 25. Percentages of Departments in Each Department Type Which Said Performance Standards Were Needed for Specified Security Device.

DEPARTMENT
TYPE:

	% Depts. Penetration Resistant Glass	% Depts. Security Screens & Grill	% Depts. <u>General</u> Purpose Locks	% Depts. <u>Special</u> Purpose Locks	% Depts. "None" or No Answer
50 Largest	56	44	44	40	31
City (50+)	51	47	44	35	31
City (10-49)	47	48	30	30	34
Township	44	52	36	8	40
State	43	21	21	15	49
County	35	44	31	31	38
City (1-9)	19	31	24	23	58

2.2.8 Other Comments

26. Please tell us anything else you would like to say about the equipment in this questionnaire:

- 26.A. "Direct-to-Police" Alarm Displays
- 26.B. Night vision equipment
- 26.C. Closed Circuit TV System which needs Daylight or Artificial Illumination
- 26.D. Cameras
- 26.E. Other Security Devices
- 26.F. Other

2.2.8.1 Comments About "Direct-to-Police" Alarm Displays

The comments supplied concerning "direct-to-police" alarm displays were often general reactions (both positive and negative) to the use of such systems in police departments. Other comments were elaborations on departmental policies concerning subscribers, and some were comments suggesting design changes or standardization to improve the usefulness of such systems. Some examples are presented below. Each department's comments were recorded verbatim and are available, without identifying data, for research purposes.

"Would be restricted for financial institutions or government facilities, but the banks normally do not trigger alarms until the suspect has left premises which is very ineffective."

"Very good--should be on all stores."

"Far too many false alarms from malfunctions. Manpower expended for nothing."

"Most alarms (false) set off by human error and not mechanical failure."

"Displays should be miniaturized alarms self sustaining (battery) during power failure, U. L. approved, and standard universal displays."

"Interferes with normal duties of dispatcher. Too much time consumed attempting to locate alarm company operators and owners to reset alarms after hours."

"Key shut-off should be designed so that door cannot be unlocked without turning alarm off. Would reduce false alarms."

"We have found this to be a good security device."

2.2.8.2 Comments About Night Vision Equipment

The focus of comments about night vision equipment was centered on the expense of such devices. Other comments were concerned with the advantages and disadvantages of such equipment. Some examples are given below.

"Would be of definite use--cost prohibitive."

"It is too expensive. Most of it is too bulky to work well in police functions."

"Very beneficial piece of equipment during times of public disturbance -- night surveillance purposes."

"Cost is prohibitive."

"Should be able to identify and read license plates at 100 yards with picture taking capability."

"I think this would cut burglaries down 80%."

"Not enough of this equipment available at a price smaller departments can afford to purchase."

"Need portable power supply for recording with low light level TV cameras as portable units."

"Need this equipment at times but unable to get funds to provide it."

2.2.8.3 Comments About Closed Circuit TV System Which Needs Daylight or Artificial Illumination

Many of the comments about Closed Circuit TV mentioned needed improvements in this equipment, but several departments also discussed their own individual need for CCTV. Some examples are presented below.

"We have had considerable problems with portable video units, continually breaking down."

"A must for detention cells."

"An essential part of all modern progressive police functions. Should be engineered into smaller units for easier use."

"Keeps prisoners awake at night, bulbs burn out."

"The quality of clarity should be improved."

"Very expensive."

"Resolution on these devices should be improved."

"Improvement of lighting usually necessary."

"Need cassette system standards and increased automation on cameras for 'idiot-proofing'."

"Expensive, high maintenance, not too reliable."

2.2.8.4 Comments About Cameras

The comments about cameras which were supplied for this question generally resembled the camera comments which were supplied in Section 2.2.6 of this report. Most of these comments had to do with difficulties in operating cameras or with suggestions to improve the performance of cameras for police work. Examples are presented below.

"Development of technically sound, non-breakable and easily used automatic camera."

"Problem is not so great with the cameras themselves, but rather the proper use. Coordination of flash attachment and damage thereto is a maintenance problem."

"We need a camera of durable construction--simple to operate--flash range minimum 25 ft.--with view finder that would permit operator to maintain stance to afford maximum vision of area and personal safety."

"Most of the problems with cameras can be traced to improper use by operator."

"Some type program should be formed to give 'every' small department training in use of all types of cameras. For instance, a mobile training van that would be in every city once a year to update training."

"A definite need for a reliable, easy to operate camera which has a built-in flash; three lens settings; close up, medium distance, distance setting; and about three speed settings."

2.2.8.5 Comments About Other Security Devices

Comments about other security devices were few and varied. Several were about the high cost of all security equipment, and several called for standardization of specific devices or equipment. Examples are presented below.

"Glass in police vehicles should be resistant to thrown objects at the very least."

"Standards should be set by law on all security devices used on public housing such as locks, screens, glass, outside lighting and doors."

"High cost prohibits small departments from obtaining."

"Definite need for rigid standards concerning laminated glass."

"Vehicle screens very important in dual purpose vehicles, but some too expensive, cumbersome, and interfere with visibility and air circulation."

APPENDIX A: QUESTIONNAIRE

NBS-884
May 1972

OMB 41-F72030
Approval Expires June 30, 1973

U.S. Department of Commerce
National Bureau of Standards

DETAILED QUESTIONNAIRE: ALARM DISPLAYS,
SECURITY EQUIPMENT, AND
SURVEILLANCE EQUIPMENT

POLICE EQUIPMENT SURVEY

Sponsored By:

National Institute of Law Enforcement and Criminal Justice
Law Enforcement Assistance Administration
U. S. Department of Justice

Directed and Conducted By:

Behavioral Sciences Group
National Bureau of Standards
Washington, D. C. 20234
Phone: 301-921-3558

INTRODUCTION: Police departments often monitor the displays on which alarms from local businesses are received. Several different manufacturers make alarm systems, and their alarm displays operate differently. Security and surveillance equipment are also needed by the police themselves to help carry out their work. In order to make it easier for law enforcement groups to offer services, and to select and buy equipment to meet their own needs, the Law Enforcement Standards Laboratory will write PERFORMANCE standards for such equipment.

PURPOSE OF THIS QUESTIONNAIRE: This "detailed" questionnaire gives you, the user, a chance to tell us about the alarm displays, security, and surveillance devices you are now using, the problems you find in using such equipment, and the items or services you will probably deal with in the future. Your answers will be used to determine what kinds of testing need to be done, and what sorts of problems must be solved. We must find out what YOUR needs are.

GENERAL INSTRUCTIONS:

1. Fill in the questionnaire completely. Even if you do not have all the information you need "at your fingertips", please make your best effort to supply every answer AS ACCURATELY AS POSSIBLE.
2. Answer all questions for YOUR OWN DEPARTMENT. Do not attempt to supply information that might exist in some other department.
3. The results of this questionnaire will be compiled by computer. It is very important that you follow directions and answer every question legibly and in the boxes and spaces provided.
4. No individual department will be identified in the report of this survey; the results will be published in tabulated form.
5. Additional instructions for filling in your answers appear after some questions. Follow the directions given.
6. Please PRINT all answers or comments CLEARLY.
7. When this questionnaire has been completely filled in; place it, with the other questionnaires sent to your department, in the stamped, addressed envelope supplied. Return all of them to:
Technology Building, A-110
National Bureau of Standards
Washington, D.C. 20234
8. If you have any questions, write to the above address or call collect:
E. Bunten or P. Klaus
Phone: 301-921-3558
9. Remember that it is only by getting YOUR answers to these questions that it will be possible to begin solving the problems that police have with alarm displays, security, and surveillance equipment.

PART I: "DIRECT-TO-POLICE" ALARM DISPLAYS

1. Does your department now have ONE OR MORE displays for "direct-to-police" burglar or robbery alarms from banks, savings and loans, or other businesses?

(10)***

_____ Yes

_____ No

IF "YES" CONTINUE WITH
QUESTIONS 2 THROUGH 9.

IF "NO" SKIP TO
QUESTION 9.

2. Which MANUFACTURERS made the "direct-to-police" alarm displays that you have in your department?

MANUFACTURERS

(11-12) _____

3. About how many ALARMS (both real and false) are USUALLY received by your department in a MONTH?

NUMBER OF ALARMS
(REAL AND FALSE)
EVERY MONTH

ALL ALARMS THAT COME FROM:

(13-16)	_____	<u>Displays in department</u>
(17-20)	_____	<u>McCulloh Receiving System</u> (gives printed message to indicate alarm)
(21-24)	_____	<u>Central Stations</u> who pass alarm on to police by phone
(25-28)	_____	<u>Automatic Dialer</u> which gives taped emergency message
(29-32)	_____	Other (Specify) _____
(33-36)	_____	Total

*** Numbers in parentheses are for computer use only.

4. For this average number of alarms per MONTH, about how many of them are FALSE ALARMS?

FALSE ALARMS
EVERY MONTH

FALSE ALARMS THAT COME FROM:

(37-40)	_____	<u>Displays</u> in department
(41-44)	_____	<u>McCulloh Receiving System</u> (gives printed message to indicate alarm)
(45-48)	_____	<u>Central Stations</u> who pass alarm on to police by phone
(49-52)	_____	<u>Automatic Dialer</u> which gives taped emergency message
(53-56)	_____	Other (Specify) _____
(57-60)	_____	Total

5. About how many DIRECT-TO-POLICE tie-ins does each kind of SUBSCRIBER have on your department's alarm displays?

NUMBER

TYPE OF SUBSCRIBER

(61-65)	_____	Financial Institutions (banks, savings and loans, etc.)
(66-70)	_____	Jewelry Stores
(71-75)	_____	Small Businesses (OTHER than jewelry stores)
(76-80)	_____	Large Businesses (OTHER than jewelry stores)
(10-14)	_____	Schools
(15-19)	_____	Residences
(20-24)	_____	Other (Specify) _____
	_____	Other (Specify) _____

6. Does your department now LIMIT, or may have to limit in the future, the NUMBER of subscribers you can accept for "direct-to-police" tie-ins?

(25) _____ Yes

_____ No

IF "NO" <u>SKIP TO</u> QUESTION 8

7. (IF "YES" TO QUESTION 6) We must limit the number of subscribers for "direct-to-police" tie-ins for the following reason(s):
(MARK X BY EACH ITEM THAT APPLIES)

(26-32) ☐ Limited Space for Panels

☐ Limited Personnel for Monitoring Panels

☐ Too Many False Alarms

☐ Each Alarm System May Need Its Own Kind of Display

☐ Inadequate Servicing by Alarm Companies

☐ Possible Competition with Central Stations

☐ Other (Specify) _____

☐ Other (Specify) _____

8. What problems have you had, if any, with the DISPLAYS THEMSELVES?
(MARK X BY EACH ITEM THAT APPLIES)

(33-39) ☐ We Have No Problems with Our Displays

☐ Displays Are Too Large

☐ Too Many Different Types of Alarm Signals (lights, buzzers, bells, etc.)

☐ No Way to Tell When an Alarm System is On or Off

☐ Department Cannot Test Alarm System Automatically

☐ Frequent Component Failures (lights on displays, for example)

☐ Other (Specify) _____

☐ Other (Specify) _____

☐ Other (Specify) _____

9. Will your department be likely to provide a service of "direct-to-police" tie-ins within the next 5 years?

(40) ☐ Yes ☐ No

PART II.A. NIGHT VISION EQUIPMENT

10. Do you use night vision equipment in your department?

(41) ☐ Yes

☐ No

IF "NO", SKIP TO
QUESTION 14.

11. (IF "YES" TO QUESTION 10) Mark X by each of the following kinds of night vision equipment that you use in your department.

(42-46) ☐ Night Vision Scopes SUITABLE FOR RIFLES (can also be hand-held when needed)

☐ Hand-held Passive Image Intensifier (Nightscope) NOT SUITABLE FOR RIFLE MOUNTING

☐ Hand-held Infrared Device which is NOT SUITABLE FOR RIFLE MOUNTING

☐ Low-Light Level (Closed Circuit) TV (operates under night-time conditions WITHOUT artificial light)

☐ Other (Specify) _____

☐ Other (Specify) _____

12. Does your department have any problems with ANY of these night vision devices?

(47) ☐ Yes

☐ No

IF "NO" SKIP
TO QUESTION 14

13. (IF "YES" TO QUESTION 12) Mark X for EACH PROBLEM you have had for EACH KIND OF EQUIPMENT:

PROBLEM	KIND OF EQUIPMENT			
	Night Vision Scope Suitable for Rifle and Hand Use	Hand-held Nightscope <u>Not</u> Suitable For Rifle	Hand-held Infrared Device <u>Not</u> Suitable For Rifle	Low-Light Level TV
Poor image quality (resolution)	(48)	(49)	(50)	(51)
Difficult to choose the appropriate lens	(52)	(53)	(54)	(55)
Regular camera lenses cannot be used with night vision devices	(56)	(57)	(58)	(59)
Device is too delicate for normal use	(60)	(61)	(62)	(63)
Poor reliability (failures with tubes, power supplies, etc.)	(64)	(65)	(66)	(67)
Other Problem (Specify) _____ _____	(68)	(69)	(70)	(71)
Other Problem (Specify) _____ _____				

14. What night vision devices, if any, will your department BE
LIKELY TO BUY in the next 5 years? (MARK X BY EACH ITEM THAT
APPLIES)

(72-77) _____ We will probably NOT BUY any night vision devices in that
time.

_____ Night Vision Scope SUITABLE AS RIFLE AND HAND SCOPE

_____ Hand-Held Passive Image Intensifier (Nightscope) NOT
suitable for rifle mounting

_____ Hand-held Infrared Device NOT suitable for rifle mounting

_____ Low-Light Level (Closed Circuit) TV (operates under night-
time conditions WITHOUT artificial light)

_____ Other (Specify) _____

_____ Other (Specify) _____

PART II.B. CLOSED CIRCUIT TELEVISION (CCTV)

15. Does your department use closed circuit TV which REQUIRES DAYLIGHT
OR ARTIFICIAL ILLUMINATION?

(78) _____ Yes

_____ No

IF "NO" <u>SKIP</u> TO QUESTION 18

16. (IF "YES" TO QUESTION 15) In which of the following ways do you
use closed circuit TV in your department? (MARK X BY EACH ITEM
THAT APPLIES)

(10-16) _____ Checking on prisoners

_____ Police line-ups

_____ Surveillance within Department's buildings (other than
prisoners and line-ups)

_____ Watching activity during civil disturbances

_____ Surveillance of "high crime" districts

_____ Training

_____ Other (Specify) _____

_____ Other (Specify) _____

17. Tell us about any PROBLEMS that your department has with this
CLOSED CIRCUIT TV SYSTEM.

(17)

18. Does your department have a video tape recorder?

(18)

_____ Yes

_____ No

IF "NO" <u>SKIP</u> TO QUESTION 21.
--

19. (IF "YES" TO QUESTION 18) How does your department use the video
tape recorder?

(MARK X BY EACH ITEM THAT APPLIES)

(19-24)

- _____ With closed circuit TV
- _____ Police line-ups
- _____ Recording traffic violations
- _____ Collecting evidence at scene of crime (OTHER than traffic
violations)
- _____ Training
- _____ Other (Specify) _____
- _____ Other (Specify) _____

20. What PROBLEMS, if any, has your department had with the video tape recorder?

(25)

21. Will your department be LIKELY TO BUY (a) a closed circuit TV system requiring daylight or artificial light, and/or (b) a video tape recorder IN THE NEXT 5 YEARS?

(a) Closed circuit TV system

(26)

_____ Yes _____ No

(b) Video tape recorder

(27)

_____ Yes _____ No

PART III. CAMERAS

22. What kinds of CAMERAS, if any, are now used by your department? (MARK X BY EACH ITEM THAT APPLIES)

(28-35)

_____ NONE (IF YOU CHECKED "NONE", SKIP TO QUESTION 24)

KINDS OF CAMERAS

_____ Movie Camera

Still Cameras

_____ 35 mm Single-lens Reflex

_____ 35 mm Range-finder

_____ 4" x 5" Format (For example: Speed Graphic)

_____ Roll Film Camera with automatic flashbulb
advancer and exposure control (For example:
Instamatic)

_____ Camera which uses special film for rapid
automatic processing of pictures (For example:
Polaroid)

_____ Other (Specify) _____

23. What problems, if any, has your department noticed with the cameras you marked in Question 22?

(36)

23.A. Problems with movie cameras: _____

- (37) 23.B. Problems with 35 mm Single-lens Reflex Camera _____

- (38) 23.C. Problems with 35 mm Range-Finder Camera _____

- (39) 23.D. Problems with 4" x 5" Format Camera (like Speed Graphic) _____

- (40) 23.E. Problems with Roll Film Camera with automatic flashbulb
advancer and exposure control (like Instamatic) _____

- (41) 23.F. Problems with camera which uses special film for rapid
automatic processing of pictures (like Polaroid) _____

(42)

23.G. Problems with OTHER CAMERA (Specify camera type)

Type: _____

Problem: _____

24. Which of the following types of cameras, if any, will your department BE LIKELY TO BUY within the next 5 years?

(43-50)

_____ NONE. We will probably not buy any cameras in the next 5 years.

_____ Movie camera

Still Cameras

_____ 35 mm Single-lens Reflex

_____ 35 mm Range-finder

_____ 4" x 5" Format (For example: Speed Graphic)

_____ Roll Film Camera with automatic flashbulb advancer and exposure control (For example: Instamatic)

_____ Camera which uses special film for rapid automatic processing of pictures (For example: Polaroid)

_____ Other (Specify) _____

PART IV: OTHER SECURITY DEVICES

25. Mark X by each item below that needs PERFORMANCE STANDARDS. (Mark X by "NONE" if standards are not needed for any of the items.)

(51-55)

_____ None

_____ General purpose locks (padlocks, door locks)

_____ Special purpose locks for detention centers

_____ Penetration-resistant glass (For example: bullet-proof glass, laminated glass, etc.)

_____ Security screens and grills

PART V: COMMENTS

26. Please tell us anything else you would like to say about the equipment in this questionnaire:

26.A. "Direct-to-Police" Alarm Displays: _____

26.B. Night Vision Equipment: _____

26.C. Closed Circuit TV System which needs Daylight or Artificial Illumination: _____

26.D. Cameras: _____

26.E. Other Security Devices: _____

26.F. Other: _____

IDENTIFYING INFORMATION: (All identifying information will be kept confidential)

Name of Department: _____

Address: _____

Name of person who answered this questionnaire:

Name

Title: _____ Rank: _____

No. of years experience in law enforcement: _____

Telephone Number: _____

Others who helped: 1. _____
Name

Title: _____ Rank: _____

No. of years experience in law enforcement: _____

Telephone Number: _____

2. _____
Name

Title: _____ Rank: _____

No. of years experience in law enforcement: _____

Telephone Number: _____

APPENDIX B

DATA TABLES

B.1 Advice to the Reader

- (a) The data presented in the following tables resulted from the responses of a stratified random sample (see Section 1.2) of police departments in response to a specific set of questions (see Appendix A). These data do not, in any way, reflect objective testing of any of the equipment by the National Bureau of Standards. The reader is cautioned to become familiar with the questionnaire and to evaluate the data in terms of the exact questions asked.
- (b) Tables have been numbered after the question number (e.g., the tables for Question 6A. would be numbered 6A-1, 6A-2, etc.). The data are usually presented by number of respondents and nearest whole percentage. Because of the statistical limitations imposed by the sample sizes used in this study, the reader is cautioned to be wary of assigning importance to percentage differences of less than 5% when percentages are based on all respondents, and to percentage differences of less than 10% when percentages are based on one of the sub-sample groups, (e.g., a particular Department Type or Region). No statistical tests of significance are reported.
- (c) These tables are based on the responding departments from the specific sample selected for this questionnaire. This sample was not proportional to the total population of police departments, and although it is possible to do so, the data in these tables have not been weighted to allow direct extrapolation to the total population.
- (d) In order to extrapolate to the total population from the respondent data presented in this report, use the following procedure: For each Department Type, multiply the percentage of respondents of a particular Department Type giving the answer of interest (See B.2 Data Tables, Appendix B) by the total number of departments of that Department Type in the population (See Table 1.2-2, Section 1.2); add those seven subtotals; and divide the total by the total number of police departments in the population (Table 1.2-2). The quotient of this division will be an estimate of the percentage of all U.S. police departments that would choose the answer of interest.

B.2 Data Tables

Table i-1.
RANK OF PERSON WHO FILLED IN QUESTIONNAIRE

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
CHIEF	144	32	0	3	61	73	42	47	23	28	1	2	15	60		
CAPTAIN	64	14	16	34	2	2	13	15	21	26	8	18	3	12		
COLONEL	3	1	3	6	0	0	0	0	0	0	0	0	0	0		
ACTING CHIEF	4	1	0	0	1	1	1	1	0	0	0	0	0	0		
ASSISTANT CHIEF	16	4	1	2	1	1	8	9	4	5	2	4	0	0		
MAJOR	6	1	3	6	0	0	0	0	2	2	1	2	0	0		
LIEUTENANT	43	10	9	19	1	1	6	7	14	17	9	20	0	0		
DEPUTY SHERIFF	27	6	0	0	24	31	1	1	1	1	1	2	0	0		
INSPECTOR	2	0	1	2	0	0	0	0	0	0	1	2	0	0		
SHERIFF	30	7	0	0	30	39	0	0	0	0	0	0	0	0		
SERGEANT	47	11	6	13	5	6	4	5	14	16	7	9	20	2	8	
PATROLMAN	15	3	0	0	2	2	3	3	2	2	6	13	2	8		
OTHER TITLE	32	7	6	13	3	4	10	12	7	9	3	7	1	4		
UNDERSHERIFF	7	2	0	0	7	9	0	0	0	0	0	0	0	0		
SPECIALIST	7	2	2	4	1	1	0	0	0	0	4	9	0	0		
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100

Table i-2.
YEARS OF EXPERIENCE OF PERSON WHO FILLED IN QUESTIONNAIRE

RESPONSE	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		No.	%	No.	%	CITY (1-9 OFFICERS)	No.	%	CITY (10-49 OFFICERS)	No.	%	No.	%	No.	%
2 OR LESS	12	3	0	0	5	6	7		1	1	0	0	0	0	0
3 - 5 YEARS	33	7	0	0	11	13	16		2	2	2	4	9	1	4
6 - 10 YEARS	68	15	1	2	18	23	11	13	20	22	8	10	4	9	6
11 - 15 YEARS	82	18	5	11	16	21	15	18	16	18	16	20	7	16	24
16 - 20 YEARS	105	23	14	30	11	14	17	20	24	27	21	26	13	29	5
21 - 25 YEARS	73	16	14	30	7	9	8	10	12	13	16	20	12	27	4
26 - 30 YEARS	29	6	6	13	3	4	4	5	7	8	6	7	2	4	16
31 OR MORE	32	7	4	9	5	6	6	7	6	7	8	10	2	4	1
NO ANSWER	13	3	3	6	1	1	3	4	1	1	4	5	1	2	4
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25

Table 1. 1. DOES YOUR DEPARTMENT NOW HAVE ONE OR MORE DISPLAYS FOR "DIRECT-TO-POLICE" BURGLAR OR ROBBERY ALARMS FROM BANKS, SAVINGS AND LOANS, OR OTHER BUSINESSES?

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE										TOWNSHIP				
		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%			NO.	%	
YES																
NO: NO MEANS FOR RECEIVING	298	67	11	23	39	51	43	52	85	96	75	93	29	64	10	64
ALARMS	128	29	35	74	32	42	36	43	4	4	3	4	11	24	7	28
NO: ONLY RECEIVE ALARMS BY	17	4	0	0	5	6	3	4	0	0	3	4	4	9	2	8
MEANS OTHER THAN DISPLAYS	4	1	1	2	1	1	1	1	0	0	0	0	1	2	0	0
NO ANSWER																
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100

Table 2-1. NUMBER OF MANUFACTURERS FOR DISPLAYS PER DEPARTMENT TYPE. (TAKEN FROM QUESTION 2. (IF "YES" TO QUESTION 1) WHICH MANUFACTURERS MADE THE "DIRECT-TO-POLICE" ALARM DISPLAYS THAT YOU HAVE IN YOUR DEPARTMENT?)

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE										TOWNSHIP				
		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%		NO.	%		
1 MANUFACTURER	120	40	5	45	17	44	24	56	32	38	24	32	14	48	4	25
2 - 3 MANUFACTURERS	109	37	0	0	17	44	17	40	38	45	21	28	9	31	7	44
4 - 5 MANUFACTURERS	44	15	3	27	2	5	1	2	8	9	21	28	5	17	4	25
6 OR MORE MANUFACTURERS	12	4	2	18	0	0	0	0	5	6	5	7	0	0	0	0
UNKNOWN	6	2	1	9	1	3	1	2	1	0	2	3	0	0	1	6
NO ANSWER	7	2	0	0	2	5	0	0	2	2	2	3	1	3	0	0
TOTALS	298	100	11	100	39	100	43	100	95	100	75	100	29	100	15	100

Table 2-2.

2. (IF "YES" TO QUESTION 1) WHICH MANUFACTURERS MADE THE "DIRECT-TO-POLICE" ALARM DISPLAYS THAT YOU HAVE IN YOUR DEPARTMENT?

DISPLAY MANUFACTURER	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
A	140	47	5	45	10	26	16	37	50	59	44	59	5	17	10	63
B	77	26	6	55	7	18	4	9	24	28	26	35	4	14	6	38
C	121	41	5	45	15	38	15	37	31	36	33	44	16	55	5	31
D	34	11	3	27	6	15	7	16	6	7	12	16	0	0	0	0
E	86	29	5	45	12	31	5	12	20	24	26	35	14	48	4	25
MISCELLANEOUS*	130	44	4	36	11	28	17	40	42	49	34	45	13	45	9	56

*120 listings for manufacturers were categorized as "Miscellaneous"; each listing was named by 3%, or fewer, of all departments with displays (n=298). Data cited here represent those departments naming at least one "Miscellaneous" manufacturer.

Table 3. NUMBER OF DEPARTMENTS PER MEANS OF RECEIVING ALARMS. (TAKEN FROM Q. 3. (IF DEPT. RECEIVES ALARMS*))

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
DISPLAYS	275	95	7	100	38	88	42	93	83	100	70	96	20	87	15	88
MCCULLOUGH RECEIVING SYSTEM	8	3	0	0	0	0	1	2	3	4	1	1	1	4	2	12
WITH PRINTED MESSAGE	92	32	1	14	5	12	5	11	17	20	36	49	13	78	10	59
CENTRAL STATIONS	119	41	3	43	19	44	13	29	27	33	32	44	14	61	11	65
AUTOMATIC DIALER	23	8	0	0	1	2	2	4	4	5	10	14	5	22	1	6
OTHER MEANS OF RECEIVING																
TOTALS	517	179	11	157	63	146	63	139	134	162	149	204	58	252	39	230

* THE TABLE IS BASED ON ALL DEPARTMENTS WHO SPECIFIED THEIR MEANS OF RECEIVING ALARMS. (THEREFORE, DEPARTMENTS WITH MEANS OF RECEIVING OTHER THAN DISPLAYS ARE INCLUDED, WHERE APPLICABLE.)

Table 3/4-1.

RECORD-KEEPING FOR ALARM DATA. (TAKEN FROM QUESTIONS 3, 4. (IF DEPT. RECEIVES ALARMS*) Q. 3. ABOUT HOW MANY ALARMS (BOTH REAL AND FALSE) ARE USUALLY RECEIVED BY YOUR DEPARTMENT IN A MONTH? Q. 4. FOR THIS AVERAGE NUMBER OF ALARMS PER MONTH, ABOUT HOW MANY OF THEM ARE FALSE ALARMS?)

RESPONSE

	ALL DEPARTMENT TYPES	DEPARTMENT TYPE					CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
		NO.	%	NO.	%	NO.			
DEPTS. WITH DATA SEPARATED BY MEANS OF RECEIVING	201	92		7	64	43	98		
DEPTS. WITH SUM ONLY/NO BREAKDOWN FOR MEANS	8	3		1	9	0	0		
DEPTS. WITH UNKNOWN NUMBER OF ALARMS	12	4		3	27	1	2		
NO ANSWER	4	1		0	0	0	0		
TOTALS	315	100		11	100	44	100	85	100
								78	100
								33	100
								23	70
								5	15
								0	0
								4	5
								1	1
								2	6
								33	100
								17	94
								1	6
								3	9
								2	6
								0	0
								0	0
								18	100

* THE TABLE IS BASED ON ALL DEPARTMENTS WHO INDICATED THAT THEY RECEIVE ANY TYPE OF ALARM.
(THEREFORE, DEPARTMENTS WITH MEANS OF RECEIVING OTHER THAN DISPLAYS ARE INCLUDED, WHERE
APPLICABLE.)

Table 3/4-2. DESCRIPTIVE STATISTICS ABOUT TOTAL (BOTH REAL AND FALSE) AND FALSE ALARMS PER MONTH (TAKEN FROM QUESTIONS 3, 4.)

A) DISPLAYS IN DEPARTMENT

RESPONSE	ALL DEPARTMENT TYPES			STATE		COUNTY		DEPARTMENT TYPE					FIFTY LARGEST CITIES	TOWNSHIP		
	*	**		*	**	*	**	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)						
MEAN	37.4	34.5	118.7	115.7	8.4	6.0	12.3	11.2	23.7	22.3	57.1	53.3	119.7	106.8	18.3	16.7
MINIMUM	0	0	2	2	0	0	0	0	0	0	2	2	2	2	1	1
MAXIMUM	750	735	350	344	100	35	113	113	195	194	250	245	750	735	45	40
MEDIAN	15	15	35	30	4	4	5	5	15	15	38	35	68	65	17	15

Table 3/4-3.

DESCRIPTIVE STATISTICS ABOUT TOTAL (BOTH REAL AND FALSE) AND FALSE ALARMS PER MONTH (TAKEN FROM QUESTIONS 3, 4. (IF DEPARTMENT RECEIVES ALARMS***))

B) CENTRAL STATIONS

RESPONSE	ALL DEPARTMENT TYPES		DEPARTMENT TYPE						TOWNSHIP					
	STATE	COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES								
MEAN	190.8	174.8	5.0	4.0	7.6	7.0	9.9	7.9	41.9	33.8	872.8	812.3	9.8	5.3
MINIMUM	0	0	5	4	1	1	0	0	1	0	20	10	2	2
MAXIMUM	6000	5700	5	4	15	15	30	20	200	147	6000	5700	45	12
MEDIAN	15	11	5	4	2	2	9	6	25	21	238	170	5	5

* REPRESENTS TOTAL ALARMS (BOTH REAL AND FALSE).

**** REPRESENTS FALSE ALARMS.**

*** THE TABLE IS BASED ON ALL DEPARTMENTS WHO INDICATED THAT THEY RECEIVE ALARMS BY THIS MEANS. (THEREFORE, EVEN DEPARTMENTS WITHOUT DISPLAYS ARE INCLUDED, WHEN APPLICABLE.)

Table 3/4-4.

DESCRIPTIVE STATISTICS ABOUT TOTAL (BOTH REAL AND FALSE) AND FALSE ALARMS PER MONTH (TAKEN FROM QUESTIONS 3, 4. (IF DEPARTMENT RECEIVES ALARMS***)

C) AUTOMATIC DIALER

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE							TOWNSHIP
		STATE	COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES		
MEAN	96.6	35.7	8.5	5.0	4.4	23.7	731.8	4.2	
MINIMUM	0	7	0	0	0	0	10	1	
MAXIMUM	8700	90	59	12	10	90	8700	10	
MEDIAN	5	10	2	4	3	17	150	3	
	*	*	*	*	*	*	*	*	

Table 3/4-5.

DESCRIPTIVE STATISTICS ABOUT TOTAL (BOTH REAL AND FALSE) AND FALSE ALARMS PER MONTH (TAKEN FROM QUESTIONS 3, 4. (IF DEPARTMENT RECEIVES ALARMS***)

D) OTHER MEANS OF RECEIVING ALARMS

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE							TOWNSHIP	
		STATE	COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES			
MEAN	198.5	187.3	0	1.5	1.5	33.7	33.0	21.3	840.2	10.0
MINIMUM	1	1	0	1	1	1	1	5	50	8
MAXIMUM	1793	1703	0	2	2	100	99	60	1793	10
MEDIAN	20	12	0	2	2	17	16	20	1700	10
									650	8

* REPRESENTS TOTAL ALARMS (BOTH REAL AND FALSE).

** REPRESENTS FALSE ALARMS.

*** THE TABLE IS BASED ON ALL DEPARTMENTS WHO INDICATED THAT THEY RECEIVE ALARMS BY THIS MEANS. (THEREFORE, EVEN DEPARTMENTS WITHOUT DISPLAYS ARE INCLUDED, WHEN APPLICABLE.)

Table 3/4-6.

DESCRIPTIVE STATISTICS ABOUT TOTAL (BOTH REAL AND FALSE) AND FALSE ALARMS PER MONTH (TAKEN FROM QUESTIONS 3,4. (IF DEPARTMENT RECEIVES ALARMS**))

E) ALARMS ACROSS ALL MEANS OF RECEIVING

RESPONSE	ALL DEPARTMENT TYPES	STATE	DEPARTMENT TYPE						CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP					
			COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP								
MEAN	167.6	155.0	134.7	130.9	11.8	8.8	13.9	12.6	28.6	26.5	38.9	78.6	1373.9	1284.9	31.1	22.7
MINIMUM	0	0	2	0	0	0	0	0	0	0	2	2	35	4	2	2
MAXIMUM	16200	15690	350	344	125	67	118	118	200	195	385	370	16200	15690	95	65
MEDIAN	22	20	120	116	5	4	5	5	20	18	64	60	520	439	26	23

* REPRESENTS TOTAL ALARMS (BOTH REAL AND FALSE).

** REPRESENTS FALSE ALARMS.

*** THE TABLE IS BASED ON ALL DEPARTMENTS WHO INDICATED THAT THEY RECEIVE ANY TYPE OF ALARM.
(THEREFORE, DEPARTMENTS WITH MEANS OF RECEIVING OTHER THAN DISPLAYS ARE INCLUDED, WHERE APPLICABLE.)

Table 3/4-7. PERCENTAGE OF FALSE ALARMS PER MONTH. (TAKEN FROM QUESTIONS 3, 4. (IF DEPT. RECEIVES ALARMS*))

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE										FIFTY LARGEST CITIES	TOWNSHIP											
		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)														
		FALSE TOTAL	%	FALSE TOTAL	%	FALSE TOTAL	%	FALSE TOTAL	%	FALSE TOTAL	%													
DISPLAYS IN DEPARTMENT	9474	10297	92	910	831	97	227	320	71	470	315	91	1352	1964	94	3729	3997	93	2136	2305	89	250	275	91
	16085	17550	92	4	5	80	20	22	91	35	35	92	135	165	80	1217	1509	81	14621	15710	93	53	98	54
CENTRAL STATIONS	11052	11409	95	100	107	93	120	161	80	57	65	88	94	116	61	623	759	82	10004	10245	94	40	45	67
	4359	4663	93	0	0	0	3	3	100	5	6	83	143	148	97	168	225	75	3997	4236	94	43	45	96
OTHER MEANS OF RECEIVING**	5374	6117	88	133	135	99	0	0	0	0	0	0	4	4	100	0	0	0	5215	5883	89	22	65	23
SUM ONLY/HO BREAKDOWN FOR MEANS OF RECEIVING	46344	50126	92	1047	1078	97	379	506	75	567	624	91	2226	2400	93	5737	6490	88	35974	38464	94	408	559	73
TOTAL																								

* THE TABLE IS BASED ON ALL DEPARTMENTS WHICH PROVIDED NUMERICAL INFORMATION ABOUT TOTAL AND FALSE ALARMS FOR THE VARIOUS MEANS OF RECEIVING. (THEREFORE, DEPARTMENTS WITH MEANS OF RECEIVING OTHER THAN DISPLAYS ARE INCLUDED, WHERE APPLICABLE.)

** PRINTING RECEIVING SYSTEM DATA WERE COMBINED WITH "OTHER" DATA BECAUSE ONLY 8 DEPARTMENTS REPORTED HAVING THIS SYSTEM.

Table 5-1. NUMBER OF DEPARTMENTS PER KIND OF SUBSCRIBER. (TAKEN FROM QUESTION 5. (IF "YES" TO QUESTION 1) ABOUT HOW MANY "DIRECT-TO-POLICE" TIE-INS DOES EACH KIND OF SUBSCRIBER HAVE ON YOUR DEPARTMENT'S ALARM DISPLAYS?) (NUMBER OF DEPARTMENTS)

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
FINANCIAL INSTITUTIONS	271	91	8	73	36	92	40	93	79	93	69	92	26	90	13	81
JEWELRY STORES	130	44	2	18	2	5	15	35	49	58	57	76	3	10	2	12
SMALL BUSINESSES (OTHER THAN JEWELRY STORES)	184	62	3	27	12	31	23	53	64	75	62	83	5	17	15	94
LARGE BUSINESSES (OTHER THAN JEWELRY STORES)	155	52	4	36	8	21	15	35	52	61	60	80	8	28	8	50
SCHOOLS	54	18	3	27	1	3	6	14	18	21	17	23	2	7	7	44
RESIDENCES	88	30	1	9	8	21	6	14	26	31	33	44	3	10	11	69
OTHER	99	33	2	18	7	18	7	16	30	35	29	39	17	59	7	44
UNKNOWN NO. OF SUBSCRIBERS	5	2	3	27	0	0	0	0	0	0	2	3	0	0	0	0
NO ANSWER	7	2	0	0	0	0	1	2	2	2	3	4	1	3	0	0
TOTALS	903	334	26	235	74	191	113	262	320	376	332	444	65	224	63	394

Table 5-2. OF ALL SUBSCRIBERS REPORTED, PERCENTAGES OF EACH TYPE. (NUMBER OF SUBSCRIBERS)

RESPONSE	DEPARTMENT TYPE													
	STATE		COUNTY		CITY 1-9		CITY 10-49		CITY 50+		50 LARGEST		TOWNSHIP	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
FINANCIAL INSTITUTIONS [n=3460]	256	51	112	51	104	23	348	22	1014	21	1555	68	71	16
JEWELRY STORES [n=416]	28	5	3	1	35	7	84	5	251	5	13	1	2	*
SMALL BUSINESSES** [n=3136]	114	21	31	14	182	38	653	41	1680	34	289	13	187	43
LARGE BUSINESSES** [n=1615]	104	19	12	5	100	21	218	14	942	19	189	8	50	12
SCHOOLS [n=344]	27	5	6	3	15	3	56	3	143	3	71	3	26	6
RESIDENCES [n=1082]	4	1	41	19	18	4	156	10	776	16	7	*	80	18
OTHER [n=405]	9	2	14	6	23	5	87	5	96	2	160	7	16	4
UNKNOWN [n=10,358]	542	100	219	99	477	101	1606	100	4902	100	2284	100	432	99

* Percentage is less than 1%.
 ** Other than Jewelry Stores.

Table 5-3. DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

A) FINANCIAL INSTITUTIONS

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	12.7	32.0	3.1	2.6	4.4	14.7	59.8	5.5	
MINIMUM	1	1	1	1	1	1	1	1	1
MAXIMUM	205	52	19	7	10	80	205	18	18
MEDIAN	5	40	2	2	4	11	52	4	4

Table 5-4. DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

B) JEWELRY STORES

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	3.2	14.0	1.5	2.3	1.7	4.4	4.3	1.0	
MINIMUM	1	3	1	1	1	1	3	1	1
MAXIMUM	50	25	2	8	5	50	6	1	1
MEDIAN	2	14	2	1	1	3	4	1	1

Table 5-5. DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

C) SMALL BUSINESSES (OTHER THAN JEWELRY STORES)

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	17.0	38.0	2.6	7.9	10.2	27.1	57.8	12.5	
MINIMUM	1	2	1	1	1	1	3	2	2
MAXIMUM	300	100	12	28	35	300	218	50	50
MEDIAN	8	12	2	4	7	17	22	7	7

Table 5-6.

DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

D) LARGE BUSINESSES (OTHER THAN JEWELRY STORES)

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE			FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	10.4	26.0	1.5	6.7	4.2	15.7	23.6	6.3
MINIMUM	1	4	1	1	1	1	1	2
MAXIMUM	100	60	3	52	28	100	90	12
MEDIAN	5	20	1	2	2	10	17	6

Table 5-7.

DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

E) SCHOOLS

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE			FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	6.4	9.0	6.0	2.5	3.1	8.4	35.5	3.6
MINIMUM	1	1	6	1	1	1	22	1
MAXIMUM	60	16	6	9	12	60	49	5
MEDIAN	3	10	6	1	2	3	36	4

Table 5-8.

DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

F) RESIDENCES

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE			FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	12.3	4.0	5.1	3.0	6.0	23.5	2.3	7.3
MINIMUM	1	4	1	1	1	1	2	1
MAXIMUM	290	4	18	7	47	290	3	48
MEDIAN	3	4	3	3	4	4	2	3

Table 5-9.

DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

G) OTHER TYPES OF SUBSCRIBERS

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	4.1	4.5	1.9	3.3	2.9	3.3	3.3	9.4	2.3
MINIMUM	1	4	1	1	1	1	1	1	1
MAXIMUM	27	5	5	16	21	11	11	27	6
MEDIAN	2	5	1	1	2	2	2	5	2

Table 5-10

DESCRIPTIVE STATISTICS FOR KINDS OF SUBSCRIBERS TO DEPARTMENT'S ALARM DISPLAYS. (TAKEN FROM QUESTION 5.)

H) ALL SUBSCRIBERS

RESPONSE	ALL DEPARTMENT TYPES	STATE	COUNTY	DEPARTMENT TYPE				FIFTY LARGEST CITIES	TOWNSHIP
				CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	CITY (50 OR MORE OFFICERS)		
MEAN	36.5	67.7	5.6	11.3	19.3	70.0	70.0	81.5	27.0
MINIMUM	1	1	1	1	1	7	7	1	2
MAXIMUM	481	253	30	127	64	470	470	481	125
MEDIAN	17	40	3	4	12	49	49	64	18

Table 6.

6. (IF "YES" TO QUESTION 1) DOES YOUR DEPARTMENT NOW LIMIT, OR MAY HAVE TO LIMIT IN THE FUTURE, THE NUMBER OF SUBSCRIBERS YOU CAN ACCEPT FOR "DIRECT-TO-POLICE" TIE-INS?

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
DO/WILL LIMIT	117	39	7	64	7	18	9	21	26	31	42	56	23	79	3	19
DO NOT/WILL NOT LIMIT	178	60	4	36	31	79	33	77	58	68	33	44	6	21	13	81
NO ANSWER	3	1	0	0	1	3	1	2	1	1	0	0	0	0	0	0
TOTALS	298	100	11	100	39	100	43	100	85	100	75	100	29	100	16	100

Table 7.

7. (IF "YES" TO QUESTION 6) WE MUST LIMIT THE NUMBER OF SUBSCRIBERS FOR "DIRECT-TO-POLICE" TIE-INS FOR THE FOLLOWING REASONS. (MARK X BY EACH ITEM THAT APPLIES).

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
LIMITED SPACE FOR PANELS	95	81	4	57	7	100	5	56	23	88	36	86	18	78	2	67
LIMITED PERSONNEL FOR MONITORING PANELS	54	46	2	29	2	29	5	56	8	31	20	48	15	65	2	67
TOO MANY FALSE ALARMS	58	50	3	43	2	29	4	44	14	54	21	50	12	52	2	67
EACH ALARM SYSTEM MAY NEED ITS OWN KIND OF DISPLAY	34	29	1	14	4	57	3	33	4	15	11	26	10	43	1	33
INADEQUATE SERVICING BY ALARM COMPANIES	22	19	1	14	0	0	1	11	6	23	7	17	7	30	0	0
POSSIBLE COMPETITION WITH CENTRAL STATIONS	19	16	0	0	2	29	1	11	0	0	8	19	8	35	0	0
OTHER REASONS	20	17	2	29	1	14	0	0	5	19	2	5	10	43	0	0
TOTALS	302	258	13	186	18	258	19	211	60	230	105	251	80	346	7	234

Table 8. 8. (IF "YES" TO QUESTION 1) WHAT PROBLEMS HAVE YOU HAD, IF ANY, WITH THE DISPLAYS THEMSELVES?
(MARK X BY EACH ITEM THAT APPLIES)

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP		
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%	
NO PROBLEMS	105	35	2	18	19	49	28	65		25	29	13	17	13	45	5	31
DISPLAYS ARE TOO LARGE	56	19	3	27	2	5	5	12		18	21	19	25	5	17	4	25
TOO MANY DIFFERENT TYPES	100	34	4	36	8	21	6	14		32	38	33	44	12	41	5	31
OF ALARM SIGNALS																	
NO WAY TO TELL WHEN AN	26	9	2	18	0	0	1	2		9	11	6	8	6	21	2	12
ALARM SYSTEM IS ON OR OFF																	
DEPARTMENT CANT TEST ALARM	93	31	3	27	3	8	9	21		29	34	35	47	10	34	4	25
SYSTEM AUTOMATICALLY	71	24	4	36	6	15	3	7		18	21	25	33	10	34	5	31
FREQUENT COMPONENT FAILURES	55	18	2	18	8	21	8	14		15	18	16	21	5	17	3	19
OTHER	4	1	1	9	1	3	0	0		0	0	1	1	0	0	1	6
NO ANSWER																	
TOTALS	510	171	21	189	47	122	58	135		146	172	148	196	61	209	29	180

Table 9.

FIVE-YEAR OUTLOOK FOR "DIRECT-TO-POLICE" TIE-IN SERVICE BY DEPARTMENTS. (TAKEN FROM QUESTIONS 1, 9, Q. 1. DOES YOUR DEPARTMENT NOW HAVE ONE OR MORE DISPLAYS FOR "DIRECT-TO-POLICE" BURGLAR ALARMS FROM BANKS, SAVINGS AND LOANS, OR OTHER BUSINESSES? Q. 9. WILL YOUR DEPARTMENT BE LIKELY TO PROVIDE A SERVICE OF "DIRECT-TO-POLICE" TIE-INS WITHIN THE NEXT 5 YEARS?)

RESPONSE	DEPARTMENT TYPE										TOWNSHIP									
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP					
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
WILL HAVE IN FUTURE:																				
HAVE NOW	187	42	6	13	24	31	29	35	56	63	48	59	14	31	10	40				
DONT HAVE NOW/NO MEANS OF RECEIVING ALARMS	29	6	3	6	5	6	14	17	1	1	1	1	2	4	3	12				
DONT HAVE NOW/RECEIVE ALARMS BY OTHER MEANS	5	1	0	0	1	1	1	1	0	0	1	1	1	2	1	4				
NO ANSWER ABOUT PRESENT STATUS	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0				
WILL NOT HAVE IN FUTURE:																				
HAVE NOW	77	17	4	9	13	17	9	11	18	20	18	22	13	29	2	8				
DONT HAVE NOW/NO MEANS OF RECEIVING ALARMS	91	20	31	66	23	30	19	23	3	3	2	2	9	20	4	15				
DONT HAVE NOW/RECEIVE ALARMS BY OTHER MEANS	10	2	0	0	4	5	1	1	0	0	1	1	3	7	1	4				
NO ANSWER ABOUT PRESENT STATUS	2	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0				
UNKNOWN ABOUT FUTURE:																				
HAVE NOW	7	2	0	0	0	0	0	0	2	2	3	4	2	4	0	0				
DONT HAVE NOW/NO MEANS OF RECEIVING ALARMS	2	0	1	2	0	0	1	1	0	0	0	0	0	0	0	0				
DONT HAVE NOW/RECEIVE ALARMS BY OTHER MEANS	27	6	1	2	2	3	5	6	9	10	6	7	0	0	4	15				
NO ANSWER ABOUT FUTURE:																				
HAVE NOW	6	1	0	0	4	5	2	2	0	0	0	0	0	0	0	0				
DONT HAVE NOW/NO MEANS OF RECEIVING ALARMS	2	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0				
DONT HAVE NOW/RECEIVE ALARMS BY OTHER MEANS	2	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0				
NO ANSWER ABOUT PRESENT STATUS	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0				
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100				

SUMMARY

Department Type	Will Have		Will Not Have		Unknown About		No Answer About	
	#	%	#	%	#	%	#	%
State (n=47)	9	19	36	77	1	2	1	2
County (n=77)	30	38	41	53	0	0	6	8
City 1-9 (n=83)	45	54	29	35	1	1	8	9
City 10-49 (n=89)	57	64	21	23	2	2	9	10
City 50+ (n=81)	50	61	21	25	3	4	7	8
50 largest cities (n=45)	17	37	25	56	2	4	1	2
Township (n=25)	14	56	7	28	0	0	4	16
TOTAL (n=447)	222	49	180	39	9	2	36	7

Table 10. 10. DO YOU USE NIGHT VISION EQUIPMENT IN YOUR DEPARTMENT?

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
DO USE	52	12	14	30	4	5	0	0	1	1	11	14	22	49	0	0
DO NOT USE	393	88	32	68	72	94	83	100	88	99	70	86	23	51	25	100
NO ANSWER	2	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100

Table 11. 11. (IF "YES" TO QUESTION 10) MARK X BY EACH OF THE FOLLOWING KINDS OF NIGHT VISION EQUIPMENT THAT YOU USE IN YOUR DEPARTMENT.

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1	14	27	3	21	0	0	0	0	0	0	4	36	7	32	0	0
2	31	60	9	64	2	50	0	0	0	0	5	45	15	68	0	0
3	15	29	4	29	1	25	0	0	1	100	3	27	6	27	0	0
4	14	27	4	29	1	25	0	0	0	0	3	27	6	27	0	0
5	2	4	2	14	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	76	147	22	157	4	100	0	0	1	100	15	135	34	154	0	0

KEY:

- 1: NIGHT VISION SCOPES SUITABLE FOR RIFLES (CAN ALSO BE HAND-HELD WHEN NEEDED)
 - 2: HAND-HELD PASSIVE IMAGE INTENSIFIER (NIGHTSCOPE) NOT SUITABLE FOR RIFLE MOUNTING
 - 3: HAND-HELD INFRARED DEVICE WHICH IS NOT SUITABLE FOR RIFLE MOUNTING
 - 4: LOW-LIGHT LEVEL (CLOSED CIRCUIT) TV
 - 5: OTHER
- * PERCENTAGES ARE BASED ON THOSE DEPARTMENTS WHICH HAD AT LEAST ONE TYPE OF NIGHT VISION EQUIPMENT.

Table 12. 12. DOES YOUR DEPARTMENT HAVE ANY PROBLEMS WITH ANY OF THESE NIGHT VISION DEVICES?

RESPONSE	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		CITY (10-49 OFFICERS)		CITY (1-9 OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
YES	15	29		3	21	1	25	0	0	4	36	0	0	0	0	7	32	0	0
NO	36	69		11	79	3	75	0	0	7	64	1	100	0	0	14	64	0	0
UNKNOWN/EVALUATION BEING CONDUCTED	1	2		0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0
TOTALS	52	100		14	100	4	100	0	0	11	100	1	100	0	0	22	101	0	0

Table 12/13. PROBLEMS WITH NIGHT VISION DEVICES. (Q. 12. (IF "YES" TO QUESTION 10) DOES YOUR DEPARTMENT HAVE ANY PROBLEMS WITH ANY OF THESE NIGHT VISION DEVICES? Q. 13. (IF "YES" TO QUESTION 12) MARK X FOR EACH PROBLEM YOU HAVE HAD FOR EACH KIND OF EQUIPMENT.)

	PROBLEMS OF ALL DEPARTMENT TYPES			
	1	2	3	4
POOR IMAGE QUALITY	#	%	#	%
DIFCULT TO CHOOSE	2	14	4	13
THE APPROPRIATE LENS			1	7
REGULAR LENSES CAN'T BE USED	0	0	2	6
WITH NIGHT VISION DEVICES			0	0
DEVICE IS TOO DELICATE	2	14	4	13
FOR NORMAL USE			0	0
POOR RELIABILITY	0	0	0	0
OTHER	0	0	1	3
NO PROBLEMS	2	14	6	19
UNKNOWN/EVALUATION	10	71	20	65
BEING CONDUCTED			12	80
NUMBER OF DEPARTMENTS WITH EQUIPMENT	1	7	1	3
			0	0
	14	31	15	14

- KEY:
- 1: NIGHT VISION SCOPE SUITABLE FOR RIFLE AND HAND USE
 - 2: HAND-HELD NIGHTSCOPE NOT SUITABLE FOR RIFLE
 - 3: HAND-HELD INFRARED DEVICE NOT SUITABLE FOR RIFLE
 - 4: LOW-LIGHT LEVEL TV

Table 14-1.

PREDICTIONS FOR PURCHASING NIGHT VISION DEVICES WITHIN THE NEXT FIVE YEARS. (TAKEN FROM QUESTION 14. WHAT NIGHT VISION DEVICES, IF ANY, WILL YOUR DEPARTMENT BE LIKELY TO BUY IN THE NEXT 5 YEARS?)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
WILL PROBABLY BUY	176	39		30	64	19	25	33	37	45	56	33	73	3	12
WILL PROBABLY NOT BUY ANY	256	57		17	36	57	74	65	78	32	40	11	24	21	84
UNKNOWN	1	0		0	0	0	0	0	0	1	1	0	0	0	0
NO ANSWER	14	3		0	0	1	1	5	6	3	4	1	2	1	4
TOTALS	447	100		47	100	77	100	89	100	81	100	45	100	25	100

Table 14-2.

14. WHAT NIGHT VISION DEVICES, IF ANY, WILL YOUR DEPARTMENT BE LIKELY TO BUY IN THE NEXT 5 YEARS? (MARK X BY EACH ITEM THAT APPLIES)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1	84	48		20	67	7	37	14	42	21	47	10	30	2	67
2	67	38		11	37	6	32	4	31	17	38	16	48	2	67
3	39	22		3	10	2	11	13	39	10	22	5	15	2	67
4	89	51		17	57	7	37	4	31	28	62	22	67	1	33
5	7	4		2	7	1	5	1	3	2	4	1	3	0	0
TOTALS	286	163		53	178	23	122	49	147	78	173	54	163	7	234

KEY:

- 1: NIGHT VISION SCOPE SUITABLE AS RIFLE AND HAND SCOPE
- 2: HAND-HELD PASSIVE IMAGE INTENSIFIER (NIGHTSCOPE) NOT SUITABLE FOR RIFLE MOUNTING
- 3: HAND-HELD INFRARED DEVICE NOT SUITABLE FOR RIFLE MOUNTING
- 4: LOW-LIGHT LEVEL (CLOSED CIRCUIT) TV
- 5: OTHER

* PERCENTAGES ARE BASED ON THOSE DEPARTMENTS WHICH WILL PROBABLY BUY AT LEAST ONE TYPE OF NIGHT VISION EQUIPMENT WITHIN THE NEXT FIVE YEARS.

Table 14/11/10-1. COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED NIGHT VISION DEVICES. (TAKEN FROM QUESTIONS 10, 11, 14.)

A) NIGHT VISION SCOPE SUITABLE AS RIFLE AND HAND SCOPE

RESPONSE	DEPARTMENT TYPE									
	ALL DEPARTMENT TYPES	STATE	COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP		
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	5	1	2	4	0	0	0	0	1	1
USE NOW/WILL NOT BUY MORE IN FUTURE	8	2	1	2	0	0	0	0	3	4
USE NOW/NO ANSWER ABOUT FUTURE	1	0	0	0	0	0	0	0	0	0
DO NOT USE NOW/WILL BUY IN FUTURE	78	17	17	36	7	9	14	16	20	25
DO NOT USE NOW/WILL NOT BUY IN FUTURE	339	76	26	55	68	88	68	82	72	81
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0	0	0	0	0	0	0	0	0
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	13	3	0	0	1	1	5	6	3	3
NO ANSWER ABOUT PRESENT/ WILL BUY IN FUTURE	1	0	1	2	0	0	0	0	0	0
NO ANSWER ABOUT PRESENT/ WILL NOT BUY IN FUTURE	1	0	0	0	1	1	0	0	0	0
TOTALS	447	100	47	100	77	100	83	100	89	100
									81	100
									45	100
									25	100

Department Type	SUMMARY					
	Will Buy	Will Not Buy	Unknown About Future Purchase	No Answer About Future Purchase		
	#	%	#	%	#	%
State (n=47)	20	42	27	57	0	0
County (n=77)	7	9	69	89	0	0
City 1-9 (n=83)	10	12	68	82	5	6
City 10-49 (n=89)	14	16	72	81	3	3
City 50+ (n=81)	21	26	56	69	4	5
50 largest cities (n=45)	10	22	34	76	1	2
Township (n=25)	2	8	22	88	1	4
TOTAL (n=447)	84	18	348	78	14	3

Table 14/11/10-2.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED NIGHT VISION DEVICES. (TAKEN FROM QUESTIONS 10, 11, 14.)

B) HAND-HELD PASSIVE IMAGE INTENSIFIER (NIGHTSCOPE)
NOT SUITABLE FOR RIFLE MOUNTING

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE						CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
		NO.	%	STATE	COUNTY	CITY (1-9 OFFICERS)	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	10	2		6	13	1	1	0	0	3	7
USE NOW/WILL NOT BUY IN FUTURE	21	5		3	6	1	1	0	0	12	27
DO NOT USE NOW/WILL BUY IN FUTURE	57	13		5	11	5	6	4	5	13	29
DO NOT USE NOW/WILL NOT BUY IN FUTURE	342	77		32	68	68	88	74	89	16	36
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0		0	0	0	0	0	0	0	0
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	14	3		0	0	1	1	5	6	3	4
NO ANSWER ABOUT PRESENT/ WILL NOT BUY IN FUTURE	2	0		1	2	1	1	0	0	0	0
TOTALS	447	100		47	100	77	100	83	100	89	100

SUMMARY

Department Type	Will Buy		Will Not Buy		Unknown About Future Purchase		No Answer About Future Purchase	
	#	%	#	%	#	%	#	%
State (n=47)	11	24	36	76	0	0	0	0
County (n=77)	6	7	70	90	0	0	1	1
City 1-9 (n=83)	4	5	74	89	0	0	5	6
City 10-49 (n=89)	11	12	75	84	0	0	3	3
City 50+ (n=81)	17	21	60	74	1	1	3	4
50 largest cities (n=45)	16	36	28	63	0	0	1	2
Township (n=25)	2	8	22	88	0	0	1	4
TOTAL (n=447)	67	15	365	82	1	0	14	3

Table 14/11/10-3.

COMPARISON FOR FUTURE PURCHASES WITH PRESENTLY-USED NIGHT VISION DEVICES. (TAKEN FROM QUESTIONS 10, 11, 14.)

C) HAND-HELD INFRARED DEVICE NOT SUITABLE FOR RIFLE MOUNTING

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	STATE				COUNTY				CITY (1-9 OFFICERS)				CITY (10-49 OFFICERS)				CITY (50 OR MORE OFFICERS)				FIFTY LARGEST CITIES				TOWNSHIP			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	4	1		1	2	1	1			0	0			0	0	1	1			1	2			0	0			0	0
USE NOW/WILL NOT BUY MORE IN FUTURE	11	2		3	6	0	0			0	0			1	1	2	2			5	11			0	0			0	0
DO NOT USE NOW/WILL BUY IN FUTURE	35	8		2	4	1	1			4	5			13	15	9	11			4	9			2	8				
DO NOT USE NOW/WILL NOT BUY IN FUTURE	380	85		40	85	73	95			74	89			72	81	65	80			34	76			22	88				
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0		0	0	0	0			0	0			0	0	1	1			0	0			0	0				
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	14	3		0	0	1	1			5	6			3	3	3	4			1	2			1	4				
NO ANSWER ABOUT PRESENT/ WILL NOT BUY IN FUTURE	2	0		1	2	1	1			0	0			0	0	0	0			0	0			0	0				
TOTALS	447	100		47	100	77	100			83	100			89	100	81	100			45	100			25	100				

SUMMARY

Department Type	Will Buy		Will Not Buy		Unknown About Future Purchase		No Answer About Future Purchase	
	#	%	#	%	#	%	#	%
State (n=47)	3	6	44	93	0	0	0	0
County (n=77)	2	2	74	96	0	0	1	1
City 1-9 (n=83)	4	5	74	89	0	0	5	6
City 10-49 (n=89)	13	15	73	82	0	0	3	3
City 50+ (n=81)	10	12	67	82	1	1	3	4
50 largest cities (n=45)	5	11	39	87	0	0	1	2
Township (n=25)	2	8	22	88	0	0	1	4
TOTAL (n=447)	39	9	393	87	1	0	14	3

Table 14/11/10-4.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED NIGHT VISION DEVICES. (TAKEN FROM QUESTIONS 10, 11, 14.)

D) LOW-LIGHT LEVEL (CLOSED CIRCUIT) TV

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES			COUNTY			DEPARTMENT TYPE						CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
	STATE		NO.	%		NO.	CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP						
	NO.	%		NO.	%		NO.	%	NO.	%	NO.	%	NO.	%							
USE NOW/WILL BUY MORE IN FUTURE	9	2	3	6	0	0	0	0	0	0	2	2	4	9	0	0					
USE NOW/WILL NOT BUY MORE IN FUTURE	5	1	1	2	1	1	0	0	0	0	1	1	2	4	0	0					
DO NOT USE NOW/WILL BUY IN FUTURE	80	18	14	30	7	9	4	5	10	11	26	32	18	40	1	4					
DO NOT USE NOW/WILL NOT BUY IN FUTURE	336	75	28	60	67	87	74	89	76	85	48	59	20	44	23	92					
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0					
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	14	3	0	0	1	1	5	6	3	3	3	4	1	2	1	4					
NO ANSWER ABOUT PRESENT/WILL NOT BUY IN FUTURE	2	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0					
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100					

SUMMARY

Department Type	Will Buy		Will Not Buy		Unknown About Future Purchase		No Answer About Future Purchase	
	#	%	#	%	#	%	#	%
State (n=47)	17	36	30	64	0	0	0	0
County (n=77)	7	9	69	89	0	0	1	1
City 1-9 (n=83)	4	5	74	89	0	0	5	6
City 10-49 (n=89)	10	11	76	85	0	0	3	3
City 50+ (n=81)	28	34	49	60	1	1	3	4
50 largest cities (n=45)	22	49	22	48	0	0	1	2
Township (n=25)	1	4	23	92	0	0	1	4
TOTAL (n=447)	89	20	343	76	1	0	14	3

Table 15.

15. DOES YOUR DEPARTMENT USE CLOSED CIRCUIT TV WHICH REQUIRES DAYLIGHT OR ARTIFICIAL ILLUMINATION?

RESPONSE	DEPARTMENT TYPE															
	ALL DEPARTMENT TYPES		COUNTY		STATE		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE CCTV	116	26	9	12	21	45	5	6	18	20	30	37	32	71	1	4
DO NOT USE CCTV	329	74	67	87	26	55	78	94	70	79	51	63	13	29	24	96
NO ANSWER	2	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0
TOTALS	447	100	77	100	47	100	83	100	89	100	81	100	45	100	25	100

Table 16.

16. (IF "YES" TO QUESTION 15) IN WHICH OF THE FOLLOWING WAYS DO YOU USE CLOSED CIRCUIT TV IN YOUR DEPARTMENT? (MARK X BY EACH ITEM THAT APPLIES)

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP	
							CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)					
							NO.	%	NO.	%	NO.	%				
CHECKING ON PRISONERS	43	37	1	5	5	56	3	60	7	39	12	40	14	44	1	100
POLICE LINE-UPS	21	18	3	14	1	11	3	60	3	17	5	17	6	19	0	0
OTHER SURVEILLANCE WITHIN DEPARTMENTS BUILDINGS	43	37	10	48	4	44	1	20	4	22	12	40	12	37	0	0
WATCHING ACTIVITIES DURING CIVIL DISTURBANCES	43	37	9	43	3	33	2	40	3	17	8	27	18	56	0	0
SURVEILLANCE OF HIGH CRIME DISTRICTS	10	9	3	14	0	0	0	0	2	11	1	3	4	12	0	0
TRAINING	79	68	17	81	6	67	3	60	10	56	19	63	24	75	0	0
OTHER	37	32	6	29	3	33	3	60	6	33	11	37	8	25	0	0
TOTALS	276	238	49	234	22	244	15	300	35	195	68	227	86	268	1	100

Table 17.

17. (IF "YES" TO QUESTION 15) TELL US ABOUT ANY PROBLEMS THAT YOUR DEPARTMENT HAS WITH THIS CLOSED CIRCUIT TV SYSTEM.

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES			STATE			COUNTY			DEPARTMENT TYPE						FIFTY LARGEST CITIES			TOWNSHIP				
	NO.	%		NO.	%		NO.	%		CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%		NO.	%		
IMAGE QUALITY	7	6		2	10		0	0		1	20		3	17		0	0		1	3		0	0
ILLUMINATION REQUIREMENT	6	5		0	0		1	11		1	20		0	0		2	7		2	6		0	0
VIEWING RANGE/REMOTE CONTRL	6	5		3	14		1	11		0	0		0	0		0	0		2	6		0	0
SCAN/NEED MORE EQUIPMENT	5	4		2	10		0	0		0	0		0	0		1	3		2	6		0	0
PORTABILITY																							
INTERCHANGEABILITY OF COMPONENTS/SYSTEMS	2	2		0	0		0	0		0	0		0	0		0	0		2	6		0	0
MAINTENANCE: COST/ TIME/PARTS	8	7		1	5		0	0		0	0		1	6		2	7		4	12		0	0
BREAKDOWN/RELIABILITY (AREA UNSPECIFIED)	7	6		0	0		2	22		0	0		1	6		3	10		1	3		0	0
TRAINING OF PERSONNEL	4	3		1	5		0	0		0	0		1	6		0	0		2	6		0	0
OTHER	13	11		3	14		0	0		1	20		2	11		3	10		3	9		1	100
NORMAL WEAR AND TEAR	3	3		1	5		0	0		0	0		0	0		1	3		1	3		0	0
FEW PROBLEMS	3	3		1	5		0	0		1	20		0	0		1	3		0	0		0	0
NEW EQUIPMENT: NO PROBLEMS																							
SO FAR/UNABLE TO EVALUATE	4	3		0	0		0	0		0	0		2	11		1	3		1	3		0	0
BATTERIES	2	2		1	5		0	0		0	0		0	0		1	3		0	0		0	0
CAMERA: BREAKDOWN/ DURABILITY	2	2		1	5		0	0		0	0		0	0		0	0		0	0		1	100
LACK OF STANDARDS FOR PURCHASING	1	1		0	0		0	0		0	0		0	0		1	3		0	0		0	0
NO PROBLEMS	30	26		5	24		1	11		1	20		5	28		11	37		7	22		0	0
NO ANSWER	32	28		4	19		6	67		1	20		5	28		7	23		9	28		0	0
TOTALS	135	117		25	121		11	122		6	120		20	113		34	112		37	113		2	200

Table 18.

18. DOES YOUR DEPARTMENT HAVE A VIDEO TAPE RECORDER?

RESPONSE	ALL DEPARTMENT TYPES	STATE				COUNTY				CITY (1-9 OFFICERS)				CITY (10-49 OFFICERS)				CITY (50 OR MORE OFFICERS)				FIFTY LARGEST CITIES				TOWNSHIP			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
DO HAVE VTR	156	35		32	68	13	17	7	8	20	22	43	53	40	89	1	4												
DO NOT HAVE VTR	291	65		15	32	64	83	76	92	69	78	38	47	5	11	24	96												
TOTALS	447	100		47	100	77	100	83	100	89	100	81	100	45	100	25	100												

Table 18/15.

COMPARISON OF STATUS OF CLOSED CIRCUIT TV SYSTEMS AND VIDEO TAPE RECORDERS IN DEPARTMENTS.
(TAKEN FROM QUESTIONS 15, 18)

RESPONSE	ALL DEPARTMENT TYPES	STATE				COUNTY				CITY (1-9 OFFICERS)				CITY (10-49 OFFICERS)				CITY (50 OR MORE OFFICERS)				FIFTY LARGEST CITIES				TOWNSHIP			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE CCTV/HAVE VTR	101	23		19	40	5	6	4	5	13	15	28	35	32	71	0	0												
USE CCTV/DO NOT HAVE VTR	15	3		2	4	4	5	1	1	5	6	2	2	0	0	1	4												
DO NOT USE CCTV/HAVE VTR	53	12		13	28	7	9	3	4	6	7	15	19	8	18	1	4												
DO NOT USE CCTV/DO NOT HAVE VTR	276	62		13	28	60	78	75	90	64	72	36	44	5	11	23	92												
NO ANSWER ABOUT CCTV/ HAVE VTR	2	0		0	0	1	1	0	0	1	1	0	0	0	0	0	0												
TOTALS	447	100		47	100	77	100	83	100	89	100	81	100	45	100	25	100												

Table 19.

19. (IF "YES" TO QUESTION 18) HOW DOES YOUR DEPARTMENT USE THE VIDEO TAPE RECORDER? (MARK X BY EACH ITEM THAT APPLIES)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE												TOWNSHIP		
		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES				
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%			
	74	47	17	53	4	31	4	57	9	45	22	51	18	45	0	0
WITH CCTV	30	19	3	9	2	15	1	14	5	25	11	26	8	20	0	0
POLICE LINE-UPS																
RECORDING TRAFFIC																
VIOLATIONS	42	27	9	28	1	8	3	43	7	35	13	30	8	20	1	100
COLLECTING EVIDENCE																
AT SCENE OF CRIME	76	49	12	37	7	54	3	43	16	80	21	49	16	40	1	100
TRAINING	134	86	30	94	9	69	4	57	13	65	39	91	38	95	1	100
OTHER	67	43	12	37	6	46	2	29	9	45	17	40	20	50	1	100
TOTALS	423	271	83	258	29	223	17	243	59	295	123	287	108	270	4	400

Table 20. 20. (IF "YES" TO QUESTION 18) WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT HAD WITH THE VIDEO TAPE RECORDER?

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
IMAGE QUALITY	8	5	1	3	0	0	0	0	0	1	5	2	5	3	7	1 100
HEADS	5	3	1	3	0	0	0	0	0	0	0	1	2	3	7	0 0
BATTERIES/POWER SUPPLY	7	4	2	6	0	0	0	0	0	2	10	2	5	1	2	0 0
ILLUMINATION REQUIREMENT	3	2	0	0	0	0	0	0	0	0	0	1	2	2	5	0 0
PORTABILITY	8	5	3	9	0	0	0	0	0	0	0	3	7	2	5	0 0
INTERCHANGEABILITY OF COMPONENTS/SYSTEMS	8	5	3	9	0	0	0	0	0	0	0	3	7	2	5	0 0
MAINTENANCE: COST/TIME/PARTS	7	4	2	6	0	0	0	0	0	0	0	3	7	2	5	0 0
BREAKDOWN/RELIABILITY (AREA UNSPECIFIED)	12	8	2	6	1	8	0	0	0	1	5	3	7	5	12	0 0
TRAINING OF PERSONNEL	7	4	1	3	0	0	0	0	0	1	5	3	7	2	5	0 0
OTHER	14	9	6	19	0	0	0	0	0	1	5	3	7	3	7	1 100
NORMAL WEAR AND TEAR	3	2	2	6	0	0	0	0	0	0	0	0	0	1	2	0 0
FEW PROBLEMS	3	2	2	6	0	0	0	0	0	0	0	1	2	0	0	0 0
NEW EQUIPMENT: NO PROBLEMS	5	3	1	3	1	8	1	14	0	0	0	1	2	1	2	0 0
SO FAR/UNABLE TO EVALUATE	1	1	0	0	0	0	0	0	0	0	0	0	0	1	2	0 0
UNKNOWN: SERVICED BY VENDOR	3	2	0	0	1	8	0	0	0	0	0	0	0	2	5	0 0
CAMERA: BREAKDOWN/DURABILITY	1	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0 0
LACK OF STANDARDS FOR PURCHASING	58	37	8	25	6	46	4	57	0	0	0	20	47	11	27	0 0
NO PROBLEMS	31	20	5	16	4	31	2	29	5	25	6	14	9	22	0	0
NO ANSWER	184	117	39	120	13	101	7	100	20	100	53	123	50	120	2	200

21. WILL YOUR DEPARTMENT BE LIKELY TO BUY (A) A CLOSED CIRCUIT TV SYSTEM REQUIRING DAYLIGHT OR ARTIFICIAL LIGHT, AND/OR (B) A VIDEO TAPE RECORDER IN THE NEXT 5 YEARS?

A) CLOSED CIRCUIT TV SYSTEM

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	STATE				COUNTY				CITY (1-9 OFFICERS)				CITY (10-49 OFFICERS)				CITY (50 OR MORE OFFICERS)				FIFTY LARGEST CITIES				TOWNSHIP			
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	71 16	15	32	4	5	2	2	2	2	10	11	17	21	23	51	0	0												
USE NOW/WILL NOT BUY MORE IN FUTURE	34 8	5	11	4	5	2	2	2	2	6	7	11	14	6	13	0	0												
USE NOW/UNKNOWN ABOUT FUTURE	2 0	0	0	0	0	0	0	0	0	1	1	0	0	1	2	0	0												
USE NOW/NO ANSWER ABOUT FUTURE	9 2	1	2	1	1	1	1	1	1	1	1	2	2	2	4	1	4												
DO NOT USE NOW/WILL BUY IN FUTURE	92 21	12	26	15	19	9	11	19	21	49	55	27	33	7	16	3	12												
DO NOT USE NOW/WILL NOT BUY IN FUTURE	221 49	13	28	48	62	67	81	49	55	21	26	3	7	20	40														
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	6 1	1	2	2	3	0	0	0	0	0	0	2	2	1	2	0	0												
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	10 2	0	0	2	3	2	2	2	2	1	1	2	4	2	4	1	4												
NO ANSWER ABOUT PRESENT/ WILL BUY IN FUTURE	2 0	0	0	1	1	0	0	1	1	1	1	0	0	0	0	0	0												
TOTALS	447 100	47	100	77	100	43	100	89	100	81	100	45	100	25	100														

SUMMARY

Department Type	Will Buy		Will Not Buy		Unknown About Future Purchase		No Answer About Future Purchase	
	#	%	#	%	#	%	#	%
State (n=47)	27	58	18	39	1	2	1	2
County (n=77)	20	25	52	67	2	3	3	4
City 1-9 (n=83)	11	13	69	83	0	0	3	3
City 10-49 (n=89)	30	33	55	62	1	1	3	3
City 50+ (n=81)	44	54	32	40	2	2	3	3
50 largest cities (n=45)	30	67	9	20	2	4	4	8
Township (n=25)	3	12	20	80	0	0	2	8
TOTAL (n=447)	165	37	255	57	8	1	19	4

21. WILL YOUR DEPARTMENT BE LIKELY TO BUY (A) A CLOSED CIRCUIT TV SYSTEM REQUIRING DAYLIGHT OR ARTIFICIAL LIGHT, AND/OR (B) A VIDEO TAPE RECORDER IN THE NEXT 5 YEARS?

B) VIDEO TAPE RECORDER

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
HAVE NOW/WILL BUY MORE IN FUTURE	01	20		23	49	8	10	1	1	6	7	22	27	30	67
HAVE NOW/WILL NOT BUY MORE IN FUTURE	46	10		7	15	4	5	4	5	9	10	18	22	4	9
HAVE NOW/UNKNOWN ABOUT FUTURE	1	0		0	0	0	0	0	0	0	0	0	0	1	2
HAVE NOW/NO ANSWER ABOUT FUTURE	18	4		2	4	1	1	2	2	5	6	3	4	5	11
DO NOT HAVE NOW/WILL BUY IN FUTURE	84	19		9	19	13	17	11	13	22	25	22	27	3	7
DO NOT HAVE NOW/WILL NOT BUY IN FUTURE	186	42		5	11	44	57	62	75	40	45	14	17	2	4
DO NOT HAVE NOW/UNKNOWN ABOUT FUTURE	5	1		0	0	2	3	0	0	2	2	1	1	0	0
DO NOT HAVE NOW/NO ANSWER ABOUT FUTURE	16	4		1	2	5	6	3	4	5	6	1	1	0	0
TOTALS	447	100		47	100	77	100	83	100	89	100	81	100	45	100

SUMMARY

Department Type	Will Buy #	%	Will Not Buy #	%	Unknown About Future Purchase #	%	No Answer About Future Purchase #	%
State (n=47)	32	68	12	26	0	0	3	6
County (n=77)	21	27	48	62	2	3	6	7
City 1-9 (n=83)	12	14	66	80	0	0	5	6
City 10-49 (n=89)	28	32	49	55	2	2	10	12
City 50+ (n=81)	44	54	32	39	1	1	4	5
50 largest cities (n=45)	33	74	6	13	1	2	5	11
Township (n=25)	5	20	19	76	0	0	1	4
TOTAL (n=447)	175	39	232	52	6	1	34	8

Table 22-1.

INDICATION OF CAMERA USAGE. (TAKEN FROM QUESTION 22. WHAT KINDS OF CAMERAS, IF ANY, ARE NOW USED BY YOUR DEPARTMENT?)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE				COUNTY	STATE		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE CAMERAS	403	90		47	100	70	91		57	69	83	93	80	99	45	100	21	84
DO NOT USE CAMERAS	43	10		0	0	7	9		25	30	6	7	1	1	0	0	4	16
NO ANSWER	1	0		0	0	0	0		1	1	0	0	0	0	0	0	0	0
TOTALS	447	100		47	100	77	100		83	100	89	100	81	100	45	100	25	100

Table 22-2.

22. WHAT KINDS OF CAMERAS, IF ANY, ARE NOW USED BY YOUR DEPARTMENT? (MARK X BY EACH ITEM THAT APPLIES)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE				COUNTY	STATE		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	NO.	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1	142	35		33	70	10	14		3	5	11	13	43	54	41	91	1	5
2	188	47		34	72	17	24		4	7	27	33	57	71	44	98	5	24
3	86	21		16	34	8	11		2	4	12	14	23	29	23	51	2	10
4	249	62		31	66	27	39		15	26	47	57	75	94	44	98	10	48
5	195	48		31	66	30	43		21	37	36	43	36	45	34	76	7	33
6	327	81		33	70	56	80		39	68	69	83	69	86	45	100	16	76
7	79	20		13	28	8	11		4	7	7	8	24	30	23	51	0	0
TOTALS	1266	314		101	406	156	222		88	154	209	251	327	409	254	565	41	196

KEY:

- 1: MOVIE CAMERA
- 2: 35 MM SINGLE-LENS REFLEX
- 3: 35 MM RANGE-FINDER
- 4: 4" x 5" FORMAT
- 5: ROLL FILM CAMERA WITH AUTOMATIC FLASHBULB ADVANCER AND EXPOSURE CONTROL
- 6: CAMERA WHICH USES SPECIAL FILM FOR RAPID AUTOMATIC PROCESSING OF PICTURES
- 7: OTHER

* PERCENTAGES ARE BASED ON THOSE DEPARTMENTS WHICH HAD AT LEAST ONE TYPE OF CAMERA.

Table 23-1. 23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22?

A) MOVIE CAMERAS

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE								FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%	NO.	%	
FILM PURCHASING AND PROCESSING	7	5	1	3	0	0	0	0	0	1	9	1	2	4	10	0	0	0
LENSES/LENS MOUNTS	6	4	1	3	0	0	0	0	0	1	9	1	2	3	7	0	0	0
POWER SUPPLY	4	3	1	3	0	0	0	0	0	0	0	0	0	3	7	0	0	0
MAINTENANCE: COST/																		
TIME/PARTS	1	1	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0
BREAKDOWN/RELIABILITY (AREA UNSPECIFIED)	3	2	1	3	0	0	0	0	0	0	0	0	0	2	5	0	0	0
TRAINING OF PERSONNEL	11	8	4	12	1	10	0	0	1	9	2	5	7	3	7	0	0	0
LIMITED APPLICATION/																		
REPLACEMENT NEEDED	5	4	0	0	1	10	0	0	0	0	0	1	2	3	7	0	0	0
OTHER	6	4	1	3	0	0	0	0	0	0	0	2	5	3	7	0	0	0
NORMAL WEAR AND TEAR	5	4	1	3	0	0	0	0	0	0	0	1	2	3	7	0	0	0
NO PROBLEMS	80	56	20	61	7	70	2	67	5	45	26	60	49	20	49	0	0	0
NO ANSWER	24	17	5	15	2	20	1	33	3	27	9	21	7	13	7	1	100	100
TOTALS	152	108	35	106	11	110	3	100	11	99	44	101	113	47	113	1	100	100

Table 23-2.

23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22?

B) 35 MM SINGLE-LENS REFLEX

RESPONSE

	ALL DEPARTMENT TYPES	DEPARTMENT TYPE										TOWNSHIP	
		NO.	%	STATE	COUNTY	CITY (1-9 OFFICERS)	CITY (10-49 OFFICERS)	CITY (50 OR MORE OFFICERS)	FIFTY LARGEST CITIES	NO.	%	NO.	%
FILM PURCHASING AND PROCESSING	4 2			1 3	1 6	1 25	1 4	0 0	0 0	0 0		0 0	
LENSES/LENS MOUNTS	4 2			0 0	0 0	0 0	0 0	1 2	3 7	0 0		0 0	
MIRROR	3 2			1 3	0 0	0 0	0 0	0 0	2 5	0 0		0 0	
LIGHT METER	4 2			1 3	1 6	0 0	0 0	1 2	1 2	0 0		0 0	
SHUTTER	2 1			0 0	0 0	0 0	0 0	0 0	2 5	0 0		0 0	
FILM ADVANCER	5 3			2 6	0 0	0 0	0 0	2 4	1 2	0 0		0 0	
POWER OF FLASH UNIT/ ILLUMINATION REQUIREMENT	2 1			1 3	0 0	0 0	0 0	1 2	0 0	0 0		0 0	
FLASH UNIT SYNCHRONIZATION/ RELIABILITY OF UNIT, BULBS	6 3			1 3	0 0	0 0	0 0	3 5	2 5	0 0		0 0	
MAINTENANCE: COST/ TIME/PARTS/CLEANING	1 1			1 3	0 0	0 0	0 0	0 0	0 0	0 0		0 0	
ENLARGEMENT OF PICTURES/ NEGATIVE SIZE, GRAIN	7 4			1 3	0 0	1 25	1 4	1 2	3 7	0 0		0 0	
TRAINING PERSONNEL/COMPLEX EQUIP/NEED FREQUENT USE	16 9			6 18	3 18	0 0	3 11	1 2	3 7	0 0		0 0	
OTHER	2 1			1 3	0 0	0 0	1 4	0 0	0 0	0 0		0 0	
NORMAL WEAR AND TEAR	2 1			1 3	0 0	0 0	0 0	1 2	0 0	0 0		0 0	
NEW EQUIPMENT: NO PROBLEMS	2 1			0 0	0 0	0 0	1 4	1 2	0 0	0 0		0 0	
50 FAR/UNABLE TO EVALUATE	100 53			16 47	6 35	3 75	12 44	32 56	27 61	4 80		4 80	
NO PROBLEMS	40 21			6 18	6 35	0 0	8 30	15 26	4 9	1 20		1 20	
NO ANSWER													
TOTALS	200 107			39 116	17 100	5 125	27 101	59 105	48 110	5 100		5 100	

Table 23-3.

23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22?

C) 35 MM RANGE-FINDER

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
							CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)							
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
RANGE FINDER/CLOSE UPS	4	5	1	6	0	0	0	0	0	0	2	9	1	4	0	0
LIGHT METER	1	1	0	0	0	0	0	0	0	0	0	0	1	4	0	0
SHUTTER	3	3	1	6	0	0	0	0	0	0	1	4	1	4	0	0
FILM ADVANCER	2	2	0	0	0	0	1	50	0	0	0	0	1	4	0	0
FLASH UNIT SYNCHRONIZATION/ RELIABILITY OF UNIT, BULBS	3	3	1	6	0	0	1	50	0	0	0	0	1	4	0	0
BREAKDOWN/RELIABILITY (AREA UNSPECIFIED)	2	2	0	0	0	0	1	50	0	0	0	0	1	4	0	0
ENLARGEMENT OF PICTURES/ NEGATIVE SIZE, GRAIN	1	1	0	0	0	0	0	0	1	8	0	0	0	0	0	0
TRAINING PERSONNEL/COMPLEX EQUIP/NEED FREQUENT USE	8	9	1	6	3	37	1	50	3	25	0	0	0	0	0	0
LIMITED APPLICATION/ REPLACEMENT NEEDED	2	2	0	0	0	0	0	0	1	8	1	4	0	0	0	0
NO PROBLEMS	46	53	7	44	4	50	0	0	5	42	13	57	15	65	2	100
NO ANSWER	20	23	6	37	1	12	0	0	3	25	7	30	3	13	0	0
TOTALS	92	104	17	105	8	99	4	200	13	108	24	104	24	102	2	100

Table 23-4.

23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22?

D) 4" x 5" FORMAT

RESPONSE	ALL DEPARTMENT TYPES	STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
		NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
FILM PURCHASING AND PROCESSING	7 3	0	0	0	0	1	7		1	2		3	7	0	0
LENSES/LENS MOUNTS	2 1	0	0	0	0	0	0		1	2		1	2	0	0
RANGE FINDER/CLOSE UPS	8 3	1	3	0	0	0	0		1	2		0	0	0	0
LIGHT METER	1 0	1	3	0	0	0	0		0	0		0	0	0	0
SHUTTER	7 3	1	3	0	0	0	0		0	0		1	2	0	0
FILM ADVANCER	1 0	0	0	0	0	0	0		0	0		0	0	0	0
FLASH UNIT SYNCHRONIZATION/ RELIABILITY OF UNIT-BULBS	5 2	1	3	0	0	0	0		0	0		2	5	0	0
SIZE AND WEIGHT	26 10	4	13	1	4	1	7		7	15		5	11	0	0
MAINTENANCE: COST/ TIME/PARTS/CLEANING	3 1	1	3	1	4	0	0		1	2		0	0	0	0
BREAKDOWN/RELIABILITY (AREA UNSPECIFIED)	5 2	0	0	1	4	0	0		1	2		1	2	0	0
TRAINING PERSONNEL/COMPLEX EQUIP/NEED FREQUENT USE	19 8	2	6	2	7	1	7		7	15		3	7	1	10
LIMITED APPLICATION/ REPLACEMENT NEEDED	5 2	0	0	0	0	0	0		0	0		1	2	1	10
OTHER	9 4	0	0	1	4	1	7		1	2		4	9	0	0
NORMAL WEAR AND TEAR	4 2	2	6	0	0	0	0		0	0		2	5	0	0
FEW PROBLEMS	1 0	1	3	0	0	0	0		0	0		0	0	0	0
NO PROBLEMS	114 46	13	42	14	52	6	40		17	36		39	52	19	43
NO ANSWER	59 24	6	19	8	30	6	40		14	30		6	14	3	30
TOTALS	276 111	33	104	28	105	16	108		51	108		48	109	11	110

Table 23-5.

23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22?

E) ROLL FILM CAMERA WITH AUTOMATIC FLASHBULB ADVANCER AND EXPOSURE CONTROL

RESPONSE	ALL DEPARTMENT TYPES	STATE			COUNTY			CITY (1-9 OFFICERS)			CITY (10-49 OFFICERS)			CITY (50 OR MORE OFFICERS)			FIFTY LARGEST CITIES			TOWNSHIP		
		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%		NO.	%	
FILM PURCHASING AND PROCESSING	6	3						0	0		2	6		1	3		0	0		1	14	
LENSES/LENS MOUNTS	5	3			0	0		0	0		0	1	3	3	8		1	3		0	0	
RANGE FINDER/CLOSE UPS	1	1			0	0		0	0		0	1	3	0	0		0	0		0	0	
LIGHT METER	1	1			1	3		0	0		0	0	0	0	0		0	0		0	0	
SHUTTER	5	3			3	10		0	0		0	0	0	2	6		0	0		0	0	
FILM ADVANCER	6	3			4	13		0	0		1	3		1	3		0	0		0	0	
POWER OF FLASH UNIT/ ILLUMINATION REQUIREMENT	12	6			1	3		0	0		3	8		4	11		3	9		0	0	
FLASH UNIT SYNCHRONIZATION/ RELIABILITY OF UNIT, BULBS	16	8			5	16		0	0		1	3		3	8		5	15		1	14	
BATTERIES/POWER SUPPLY	4	2			1	3		0	0		0	0		2	6		0	0		1	14	
MAINTENANCE: COST/ TIME/PARTS/CLEANING	2	1			1	3		0	0		0	0		1	3		0	0		0	0	
BREAKDOWN/RELIABILITY (AREA UNSPECIFIED)	6	3			1	3		0	0		0	0		1	3		4	12		0	0	
ENLARGEMENT OF PICTURES/ NEGATIVE SIZE, GRAIN	8	4			0	0		0	0		1	3		2	6		2	6		1	14	
TRAINING PERSONNEL/COMPLEX EQUIP/NEED FREQUENT USE	7	4			2	6		0	0		3	8		0	0		2	6		0	0	
LIMITED APPLICATION/ REPLACEMENT NEEDED	8	4			0	0		0	0		4	11		2	6		1	3		0	0	
OTHER	4	2			0	0		2	10		1	3		0	0		1	3		0	0	
NORMAL WEAR AND TEAR	1	1			1	3		0	0		0	0		0	0		0	0		0	0	
FEW PROBLEMS	1	1			1	3		0	0		0	0		0	0		0	0		0	0	
NO PROBLEMS	86	44			12	39		9	43		16	44		14	39		16	47		4	57	
NO ANSWER	43	22			6	19		10	48		8	22		7	19		3	9		0	0	
TOTALS	222	116			39	124		21	101		42	117		43	121		34	113		8	113	

23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22? F) CAMERA WHICH USES SPECIAL FILM FOR RAPID AUTOMATIC PROCESSING OF PICTURES

B-37

Table 23-7.

23. WHAT PROBLEMS, IF ANY, HAS YOUR DEPARTMENT NOTICED WITH THE CAMERAS YOU MARKED IN QUESTION 22?

G) OTHER TYPES OF CAMERAS

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE						FIFTY LARGEST CITIES		TOWNSHIP	
							CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)					
							NO.	%	NO.	%	NO.	%				
PROBLEMS CITED	27	34	1	8	4	50	0	0	3	43	10	42	9	39	0	0
	20	25	6	46	1	12	1	25	0	0	6	25	6	26	0	0
	32	41	6	46	3	37	3	75	4	57	8	33	8	35	0	0
TOTALS	79	100	13	100	8	100	4	100	7	100	24	100	23	100	0	100

Table 24-1. ESTIMATION OF CAMERA PURCHASES WITHIN THE NEXT FIVE YEARS. (TAKEN FROM QUESTION 24. WHICH OF THE FOLLOWING TYPES OF CAMERAS, IF ANY, WILL YOUR DEPARTMENT BE LIKELY TO BUY WITHIN THE NEXT 5 YEARS?)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE					CITY (50 OR MORE OFFICERS)	CITY (10-49 OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
		NO.	%	NO.	%	NO.	NO.	%	NO.	%
WILL BUY CAMERAS	287	64		41	87		57	64	36	80
WILL NOT BUY ANY CAMERAS	148	33		6	13		31	35	9	20
UNKNOWN	1	0		0	0		0	0	0	0
NO ANSWER	11	2		0	0		1	1	0	0
TOTALS	447	100		47	100		89	100	45	100

Table 24-2. 24. WHICH OF THE FOLLOWING TYPES OF CAMERAS, IF ANY, WILL YOUR DEPARTMENT BE LIKELY TO BUY WITHIN THE NEXT 5 YEARS?

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES	DEPARTMENT TYPE					CITY (50 OR MORE OFFICERS)	CITY (10-49 OFFICERS)	FIFTY LARGEST CITIES	TOWNSHIP
		NO.	%	NO.	%	NO.	NO.	%	NO.	%
1	81	28		14	34		20	36	14	39
2	119	41		23	56		29	52	27	75
3	35	12		7	17		7	12	5	14
4	72	25		12	29		12	21	16	44
5	78	27		18	44		11	20	15	42
6	118	41		17	41		27	60	19	53
7	47	16		9	22		1	2	14	39
TOTALS	550	190		100	243		60	133	110	306

KEY:

- 1: MOVIE CAMERA
- 2: 35 MM SINGLE-LENS REFLEX
- 3: 35 MM RANGE-FINDER
- 4: 4" x 5" FORMAT
- 5: ROLL FILM CAMERA WITH AUTOMATIC FLASHBULB ADVANCER AND EXPOSURE CONTROL
- 6: CAMERA WHICH USES SPECIAL FILM FOR RAPID AUTOMATIC PROCESSING OF PICTURES
- 7: OTHER

* PERCENTAGES ARE BASED ON THOSE DEPARTMENTS WHICH WILL PROBABLY BUY AT LEAST ONE TYPE OF CAMERA WITHIN THE NEXT FIVE YEARS.

Table 24/22-1. COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED CAMERAS. (TAKEN FROM QUESTIONS 22, 24.)
A) MOVIE CAMERA

RESPONSE	ALL DEPARTMENT TYPES			STATE			COUNTY			DEPARTMENT TYPE						FIFTY LARGEST CITIES			TOWNSHIP		
	NO.	%		NO.	%		NO.	%		CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%		NO.	%	
USE NOW/WILL BUY MORE IN FUTURE	36	8		11	23		1	1		0	0		2	2		13	29		1	4	
USE NOW/WILL NOT BUY MORE IN FUTURE	101	23		22	47		8	10		3	4		8	9		28	62		0	0	
USE NOW/NO ANSWER ABOUT FUTURE	5	1		0	0		1	1		0	0		1	1		0	0		0	0	
DO NOT USE NOW/WILL BUY IN FUTURE	45	10		3	6		4	5		5	6		14	16		1	2		6	24	
DO NOT USE NOW/WILL NOT BUY IN FUTURE	253	57		11	23		60	78		73	88		64	72		3	7		17	68	
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0		0	0		0	0		0	0		0	0		0	0		1	4	
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	5	1		0	0		3	4		1	1		0	0		0	0		0	0	
NO ANSWER ABOUT PRESENT OR FUTURE	1	0		0	0		0	0		1	1		0	0		0	0		0	0	
TOTALS	447	100		47	100		77	100		63	100		89	100		81	100		45	100	

SUMMARY

Department Type	Will Buy		Will Not Buy		Unknown About Future Purchase		No Answer About Future Purchase	
	#	%	#	%	#	%	#	%
State (n=47)	14	29	33	70	0	0	0	0
County (n=77)	5	6	68	88	0	0	4	5
City 1-9 (n=83)	5	6	76	92	0	0	2	2
City 10-49 (n=89)	16	18	72	81	0	0	1	1
City 50+ (n=81)	20	25	57	71	0	0	4	5
50 largest cities (n=45)	14	31	31	69	0	0	0	0
Township (n=25)	7	28	17	68	1	4	0	0
TOTAL (n=447)	81	18	354	80	1	0	11	2

Table 24/22-2.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED CAMERAS. (TAKEN FROM QUESTIONS 22, 24.)

B) 35 MM SINGLE-LENS REFLEX

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	78	17	19	40	5	6	0	0	0	5	6	22	27	60	0	0
USE NOW/WILL NOT BUY MORE IN FUTURE	105	23	15	32	11	14	4	5	22	25	31	38	17	38	5	20
USE NOW/NO ANSWER ABOUT FUTURE	5	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
DO NOT USE NOW/WILL BUY IN FUTURE	41	9	4	9	5	6	7	8	14	16	7	9	0	0	4	16
DO NOT USE NOW/WILL NOT BUY IN FUTURE	211	47	9	19	52	68	70	84	47	53	17	21	1	2	15	60
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	5	1	0	0	3	4	1	1	1	1	0	0	0	0	0	0
NO ANSWER ABOUT PRESENT OR FUTURE	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100

SUMMARY

DEPARTMENT TYPE	WILL BUY		WILL NOT BUY		UNKNOWN ABOUT FUTURE PURCHASE		NO ANSWER ABOUT FUTURE PURCHASE	
	#	%	#	%	#	%	#	%
State (n=47)	23	49	24	51	0	0	0	0
County (n=77)	10	12	63	82	0	0	4	5
City 1-9 (n=83)	7	8	74	89	0	0	2	2
City 10-49 (n=89)	19	22	69	78	0	0	1	1
City 50+ (n=81)	29	36	48	59	0	0	4	5
50 Largest cities (n=45)	27	60	18	40	0	0	0	0
Township (n=25)	4	16	20	80	1	4	0	0
TOTAL (n=447)	119	26	316	70	1	0	11	2

Table 24/22-3.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED CAMERAS. (TAKEN FROM QUESTIONS 22, 24.)

C) 35 MM RANGE-FINDER

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	15	3	6	13	0	0	1	1		0	0		5	11	0	0
USE NOW/WILL NOT BUY MORE IN FUTURE	68	15	10	21	7	9	1	1		12	13		18	40	2	8
USE NOW/NO ANSWER ABOUT FUTURE	3	1	0	0	1	1	0	0		0	0		0	0	0	0
DO NOT USE NOW/WILL BUY IN FUTURE	20	4	1	2	4	5	3	4		7	8		0	0	1	4
DO NOT USE NOW/WILL NOT BUY IN FUTURE	332	74	30	64	62	81	70	92		69	78		22	49	21	84
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0	0	0	0	0	0	0		0	0		0	0	1	4
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	7	2	0	0	3	4	1	1		1	1		0	0	0	0
NO ANSWER ABOUT FUTURE OR FUTURE	1	0	0	0	0	0	1	1		0	0		0	0	0	0
TOTALS	447	100	47	100	77	100	63	100		89	100		45	100	25	100

SUMMARY

DEPARTMENT Type	WILL BUY #	WILL NOT BUY #	UNKNOWN ABOUT FUTURE PURCHASE #	NO ANSWER ABOUT FUTURE PURCHASE #
State (n=47)	7	40	85	0
County (n=77)	4	5	69	90
City 1-9 (n=83)	4	5	77	93
City 10-49 (n=89)	7	8	81	91
City 50+ (n=81)	7	9	70	86
50 largest cities (n=45)	5	11	40	89
Township (n=25)	1	4	23	92
TOTAL (n=447)	35	7	400	89

Table 24/22-4.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED CAMERAS. (TAKEN FROM QUESTIONS 22, 24.)

D) 4" x 5" FORMAT

RESPONSE	ALL DEPARTMENT TYPES			STATE			COUNTY			DEPARTMENT TYPE						TOWNSHIP		
	NO.	%		NO.	%		NO.	%		CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	CITY (50 OR MORE OFFICERS)	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	52	12		10	21		3	4		2	2		8	9		12	15	
USE NOW/WILL NOT BUY MORE IN FUTURE	189	42		21	45		22	29		13	16		38	43		59	73	
USE NOW/UNKNOWN ABOUT FUTURE	1	0		0	0		0	0		0	0		0	0		0	0	
USE NOW/NO ANSWER ABOUT FUTURE	7	2		0	0		2	3		0	0		1	1		4	5	
DO NOT USE NOW/WILL BUY IN FUTURE	20	4		2	4		4	5		3	4		9	10		0	0	
DO NOT USE NOW/WILL NOT BUY IN FUTURE	174	39		14	30		44	57		63	76		33	37		6	7	
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	3	1		0	0		2	3		1	1		0	0		0	0	
NO ANSWER ABOUT PRESENT OR FUTURE	1	0		0	0		0	0		1	1		0	0		0	0	
TOTALS	447	100		47	100		77	100		83	100		89	100		81	100	

DEPARTMENT TYPE	WILL BUY		WILL NOT BUY		UNKNOWN ABOUT		NO ANSWER ABOUT	
	#	%	#	%	#	%	#	%
State (n=47)	12	25	35	75	0	0	0	0
County (n=77)	7	9	66	86	0	0	4	6
City 1-9 (n=83)	5	6	76	92	0	0	2	2
City 10-49 (n=89)	17	19	71	80	0	0	1	1
City 50+ (n=81)	12	15	65	80	0	0	4	5
50 largest cities (n=45)	16	36	29	64	0	0	0	0
Township (n=25)	3	12	21	84	1	4	0	0
TOTAL (n=447)	72	16	363	81	1	0	11	3

Table 24/22-5.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED CAMERAS. (TAKEN FROM QUESTIONS 22, 24.)

E) ROLL FILM CAMERA WITH AUTOMATIC FLASHBULB ADVANCER AND EXPOSURE CONTROL

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	56	13	17	36	6	8	3	4	8	9	7	9	14	31	1	4
USE NOW/WILL NOT BUY MORE IN FUTURE	131	29	14	30	21	27	17	20	27	30	26	32	20	44	6	24
USE NOW/NO ANSWER ABOUT FUTURE	8	2	0	0	3	4	1	1	1	1	3	4	0	0	0	0
DO NOT USE NOW/WILL BUY IN FUTURE	22	5	1	2	5	6	8	10	1	1	4	5	1	2	2	8
DO NOT USE NOW/WILL NOT BUY IN FUTURE	226	51	15	32	41	53	53	64	52	58	40	49	10	22	15	60
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	2	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
NO ANSWER ABOUT PRESENT OR FUTURE	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100

SUMMARY

DEPARTMENT TYPE	WILL BUY		WILL NOT BUY		UNKNOWN ABOUT FUTURE PURCHASE		NO ANSWER ABOUT FUTURE PURCHASE	
	#	%	#	%	#	%	#	%
STATE (n=47)	18	38	29	62	0	0	0	0
COUNTY (n=77)	11	14	62	80	0	0	4	5
CITY 1-9 (n=83)	11	14	70	84	0	0	2	2
CITY 10-49 (n=89)	9	10	79	88	0	0	1	1
CITY 50+ (n=81)	11	14	66	81	0	0	4	5
50 largest cities (n=45)	15	33	30	66	0	0	0	0
TOWNSHIP (n=25)	3	12	21	84	1	4	0	0
TOTAL (n=447)	78	18	357	80	1	0	11	2

Table 24/22-6.

COMPARISON OF FUTURE PURCHASES WITH PRESENTLY-USED CAMERAS. (TAKEN FROM QUESTIONS 22, 24.)

F) CAMERA WHICH USES SPECIAL FILM FOR RAPID AUTOMATIC PROCESSING OF PICTURES

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		CITY (1-9 OFFICERS)		CITY (10-49 OFFICERS)		CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
USE NOW/WILL BUY MORE IN FUTURE	79	18	13	28	10	13	8	10	15	17	12	15	19	42	2	8
USE NOW/WILL NOT BUY MORE IN FUTURE	240	54	20	43	43	56	30	36	53	60	54	67	26	58	14	56
USE NOW/NO ANSWER ABOUT FUTURE	8	2	0	0	3	4	1	1	1	1	3	4	0	0	0	0
DO NOT USE NOW/WILL BUY IN FUTURE	39	9	4	9	5	6	19	23	4	4	6	7	0	0	1	4
DO NOT USE NOW/WILL NOT BUY IN FUTURE	77	17	10	21	15	19	24	29	16	18	5	6	0	0	7	28
DO NOT USE NOW/UNKNOWN ABOUT FUTURE	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4
DO NOT USE NOW/NO ANSWER ABOUT FUTURE	2	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0
NO ANSWER ABOUT PRESENT OR FUTURE	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
TOTALS	447	100	47	100	77	100	83	100	89	100	81	100	45	100	25	100

SUMMARY

DEPARTMENT TYPE	WILL BUY #	%	WILL NOT BUY #	%	UNKNOWN ABOUT FUTURE PURCHASE #	%	NO ANSWER ABOUT FUTURE PURCHASE #	%
STATE (n=47)	17	37	30	64	0	0	0	0
COUNTY (n=77)	15	19	58	75	0	0	4	5
CITY 1-9 (n=83)	27	33	54	65	0	0	2	2
CITY 10-49 (n=89)	19	21	69	78	0	0	1	1
CITY 50+ (n=81)	18	22	59	73	0	0	4	5
50 largest cities (n=45)	19	42	26	58	0	0	0	0
TOWNSHIP (n=25)	3	12	21	84	1	4	0	0
TOTAL (n=447)	118	27	317	71	1	0	11	2

Table 25

25. MARK X BY EACH ITEM BELOW THAT NEEDS PERFORMANCE STANDARDS. (MARK X BY "NONE" IF STANDARDS

ARE NOT NEEDED FOR ANY OF THE ITEMS.)

RESPONSE

RESPONSE	ALL DEPARTMENT TYPES		STATE		COUNTY		DEPARTMENT TYPE				CITY (50 OR MORE OFFICERS)		FIFTY LARGEST CITIES		TOWNSHIP	
	NO.	%	NO.	%	NO.	%	CITY (1-9 OFFICERS)	NO.	%	CITY (10-49 OFFICERS)	NO.	%	NO.	%	NO.	%
NONE OF THESE ITEMS NEED STANDARDS GENERAL PURPOSE LOCKS SPECIAL PURPOSE LOCKS FOR DETENTION CENTERS PENETRATION-RESISTANT GLASS	163	36	21	45	29	38	45	54	29	33	20	25	9	20	10	40
	146	33	10	21	24	31	20	24	27	30	36	44	20	44	9	36
	125	28	7	15	24	31	19	23	27	30	28	35	18	40	2	8
	182	41	20	43	27	35	16	19	42	47	41	51	25	56	11	44
	184	41	10	21	34	44	26	31	43	48	38	47	20	44	13	52
NO ANSWER	16	4	2	4	0	0	3	4	1	1	5	6	5	11	0	0
TOTALS	816	183	70	149	138	179	129	155	169	189	168	208	97	215	45	140
	(n = 447)		(n = 47)		(n = 77)		(n = 83)		(n = 89)		(n = 81)		(n = 45)		(n = 25)	

U.S. DEPT. OF COMM. BIBLIOGRAPHIC DATA SHEET		1. PUBLICATION OR REPORT NO. NBSIR 73-213	2. Gov't Accession No.	3. Recipient's Accession No.
4. TITLE AND SUBTITLE LEAA POLICE EQUIPMENT SURVEY OF 1972 Volume IV: Alarms, Security Equipment, and Surveillance Equipment			5. Publication Date July 1974	
			6. Performing Organization Code	
7. AUTHOR(S) J. L. Eldreth, E. D. Bunten, P. A. Klaus			8. Performing Organ. Report No. NBSIR 73-213	
9. PERFORMING ORGANIZATION NAME AND ADDRESS NATIONAL BUREAU OF STANDARDS DEPARTMENT OF COMMERCE WASHINGTON, D.C. 20234			10. Project/Task/Work Unit No. 4314517	
			11. Contract/Grant No. LEAA-J-IAA-009-2	
12. Sponsoring Organization Name and Complete Address (Street, City, State, ZIP) National Institute of Law Enforcement and Criminal Justice Law Enforcement Assistance Administration Department of Justice Washington, D. C. 20530			13. Type of Report & Period Covered Final: 7/71-10/73	
			14. Sponsoring Agency Code	
15. SUPPLEMENTARY NOTES				
16. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.) The report outlines the methodology of and summarizes a portion of the data from the LEAA POLICE EQUIPMENT SURVEY OF 1972. One of a series of seven reports resulting from this nationwide mail survey of a stratified random sample of police departments, the present report summarizes the answers of 447 police departments concerning their use of alarm systems, cameras, security equipment, and surveillance equipment: purchasing practices, typical patterns of use, and needs for standards for such equipment. The data are presented by all responding departments and by seven department types.				
17. KEY WORDS (six to twelve entries; alphabetical order; capitalize only the first letter of the first key word unless a proper name; separated by semicolons) Alarm systems; cameras; police; police equipment; security equipment; surveillance equipment;				
18. AVAILABILITY ☒ Unlimited. ☐ For Official Distribution. Do Not Release to NTIS ☐ Order From Sup. of Doc., U.S. Government Printing Office Washington, D.C. 20402, SD Cat. No. C13 ☒ Order From National Technical Information Service (NTIS) Springfield, Virginia 22151		19. SECURITY CLASS (THIS REPORT) UNCLASSIFIED	21. NO. OF PAGES 150	
		20. SECURITY CLASS (THIS PAGE) UNCLASSIFIED	22. Price	

